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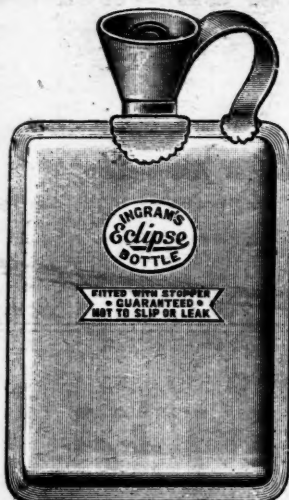
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No. 16.

A POST-GRADUATE LECTURE.

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Contrary to the generally-accepted belief, syphilis is a disease of comparatively recent introduction into Europe. The researches of Bloch and others have proved the complete absence of any evidence of this disease until the return of the sailors of Columbus from America, where they were infected with what they called the Indian disease.

Nowhere in the literature is there any indication found that a causal connexion was recognized between disease of the genitals and affections of the skin and oral cavity before the years 1493 to 1500.

Between these dates and after them, medical literature is full of descriptions of the new disease—it is indurated chancre, skin eruptions, destructions of the palate, falling in of the nose, etc. Still more conclusive evidence is afforded by the fact that while ancient pre-Columbian American skeletons show distinct syphilitic changes, in no one instance has any similar change been shown in a European bone of a date before 1493.

It was not until 1905 that the causal agent was discovered by Schaudinn and named by him the *Spirochaeta pallida*. This organism has been found to be constantly present in the primary chancre, in all secondary lesions, and in tertiary affections such as degenerative aortitis and gummata.

Still more lately it has been found in the brain and cord tissues in general paralysis of the insane, and in locomotor ataxia, diseases which were long classed as parasyphilitic, but are now definitely proved to be actually syphilitic.

From its first introduction, syphilis has been recognized as a strictly contagious disease, that is, as one spreading by direct infection only. Inoculation into apes has shown this to be due to the poor resisting powers of the virus outside the living human body. Thus attempts at inoculation failed six hours after removal of infectious material from the body, and also after death of the infected host.

Heating to 50° C. and addition of any antiseptic kills the virus, as does drying. Hence it is that syphilis is so comparatively seldom conveyed indirectly, and then only when moist secretions are transferred quickly, as by use of the same cup or pipe.

In the vast majority of cases the disease is transferred by immediate contact, usually in sexual intercourse, but also, more rarely, by kissing, suckling, or during surgical examinations.

On inoculation of the virus, there is an incubation stage of varying duration, but usually of from three to four weeks, when there is noted a red spot, which becomes indurated and forms a raised papule, on which the epithelium becomes superficially eroded.

As a rule, to which, of course, there are exceptions, no extensive loss of substance occurs.

Microscopically, this lesion is seen to consist of an aggregation of round cells, not polymorpho-nuclear cells, but lymphocytes and plasma cells. Even in the chancre, the endothelium of the vessels is seen to be thickened, and the round cells are grouped round the vessels in the perivascular lymph spaces, where also are found spirochaetes in abundance. These collections of round cells can be traced along the lymphatics to the nearest lymph glands, which become enlarged from seven to fourteen days after the appearance of the primary lesion. Sometimes this lymphatic thickening is so pronounced that indurated cords can be felt extending from the chancre to the glands.

Both chancre and glands contain spirochaetes, and this early lymphatic spread explains the proved futility of attempting to abort an attack of syphilis by excising the primary chancre. By the time the indurated chancre has developed, the infection has spread away from it along the lymph channels.

About six or seven weeks after the appearance of the primary lesions the so-called secondary stage of syphilis is entered upon. This is characterized by both local and general phenomena. The former comprise symmetrical lesions of the skin and mucous membrane, while the latter include such constitutional conditions as fever, anaemia, lymphocytosis, headache and loss of weight.

Secondary lesions of the skin and mucous membranes are just as virulently infective as is the primary chancre. Histologically, they consist of the same collections of lymphocytes and plasma cells; they show the same perivascular and endovascular thickening, and they all contain numerous spirochaetes.

The fever of secondary syphilis is usually not severe, but occasionally it has been of such a range and duration as to be mistaken for typhoid.

The anaemia is of the chlorotic type, and tends to disappear with the retrogression of the secondary eruptions. Lymphocytosis is almost always present in the eruptive stage of the disease. There is very little increase in the number of polymorphonuclear leucocytes, but a large increase in the number of lymphocytes.

It has also been found that there is a pronounced lymphocytosis of the cerebro-spinal fluid during the secondary eruptive period. This is not found in the tertiary stage, unless the central nervous system is affected, and is then to be looked upon as a most important sign of that involvement.

In its later history syphilis loses the character of an infectious fever which distinguishes the secondary stage, and its lesions are apt to be localized and of the nature of infective granuloma. This must be due to some alteration in bodily resistance as the spirochaete has been demonstrated in tertiary lesions and

inoculations of such granulomatous tissue into monkeys has produced typical primary syphilis.

The tertiary granuloma shows the same aggregation of plasma cells and thickening of vessels as does the primary chancre, but whereas the chancre tends to be completely absorbed, the gumma cells tend by their great heaping together and by associated vascular changes, to become degenerated and break down into a semi-caseous material. If situated in the substance of an organ, this caseous material is gradually absorbed with the production of a fibrous scar, but if situated superficially it tends to involve the overlying skin or mucous membrane, and to break down into a rounded excavation, with the central caseous mass forming the well-known wash-leather base.

Tertiary syphilis may show itself not only as gummata, however, but as diffused collections of plasma cells, which afterwards become converted into dense fibrous tissue. The gravity of these tertiary lesions depends on the organ involved.

Fournier, in an analysis of over 4,000 cases, found the skin to be most often infected, then the nervous system, then the bones, while visceral syphilis was relatively uncommon.

It is obvious that such changes involving the aorta or central nervous system are of much more vital importance to an individual than when they involve the skin only.

We now come to the diagnosis and treatment of syphilis in its several stages.

Diagnosis.

Primary.—The primary chancre of the genitals appears a varying time after connexion. Inoculation experiments on the human subject and on monkeys show the average incubation period to be 25 to 30 days, but it is well to regard any sore appearing more than ten days after connexion as syphilitic.

In practice, it is not wise to lay too much stress on the history of inoculation. Men may lie, or forget dates, or have reason, often unjustly, to suspect one of several partners, and so mislead the surgeon.

Again, the comparative painlessness of the primary lesion, especially if existing in the form of a papule, may lead to its being overlooked for some time after its actual appearance, thus giving an apparently overlong incubation period.

When first seen, the chancre most often presents itself as a superficial, usually circular, red spot or erosion, which gradually extends in circumference and depth, and in the course of a few days is surrounded by a well-marked area of induration.

The discharge is scanty, and consists of blood-stained serum rather than pus.

The characteristic feature is induration, due to the fact that the chancre is a granuloma and not a destructive lesion. The amount of induration varies with the situation of the chancre.

On the glans it is usually thin, flat, and parchment-like. On the coronal groove or prepuceal sulcus the induration is greater in extent, and may be described as nodular.

When the foreskin is retracted from such a chancre involving the inner surface of the prepuce, there is a

perceptible lagging, and then it seems to turn back as a whole in a manner which is very striking, and never seen apart from the syphilitic lesion.

Next to the glans and prepuce, the skin of the body of the penis is the commonest site of chancre. Sores in this situation are usually syphilitic, and present the characteristic induration. Chancre of the meatus is relatively uncommon, and of the urethra still more so. When present, both show distinct induration.

The chancre usually corresponds to this description, but very occasionally we see a large, indurated, sloughing sore, with a foul, semi-purulent discharge. This usually occurs under a long foreskin, and is due to simultaneous inoculation of a diphtheroid organism along with the spirochaete.

This type may cause great and rapid destruction of the glans and prepuce, but is, fortunately, uncommon. Syphilitic chancre is most usually single, though several abrasions may become infected on the same or closely related dates. Some observers claim to have been able to inoculate a second sore from the first up to a week after its appearance, but in the great majority of cases all attempts at autoinoculation have failed.

Soon after the chancre appears, the nearest lymph glands begin to enlarge, and in from seven to ten days the inguinal glands can usually be felt as a symmetrically arranged row of discrete, movable, hard nodules, which tend to increase in size. It must be borne in mind that in many healthy, thin people, the inguinal glands may be easily palpable. The point of diagnostic value is the steady increase in size during the first three or four weeks after the appearance of the genital sore.

As the uncomplicated syphilitic chancre is not an inflammatory lesion, the secondary lymph gland enlargements show none of the ordinary signs of inflammation. They are not painful; they do not tend to adhere to the skin or deep fascia; and they show no tendency to break down and suppurate.

The absence of subjective symptoms associated with these objective signs is perhaps the most characteristic feature of the primary stage of syphilis.

While the discovery of the spirochaete in any given lesion is of the greatest possible value, it must be recognized that comparatively few members of the profession have the requisite training, skill, and facilities for carrying out such examinations.

We must remember that syphilis was diagnosed by physical signs long before the discovery of the causative organism, and it behoves us so to educate our eyes, hands, and minds, that in most cases laboratory methods should be a confirmation of, and not a substitute for, physical examinations. This applies not only to the diagnosis of syphilis, but perhaps in a still greater degree to that of fractures, where very commonly there is practically no attempt made to judge the condition apart from the X-ray picture.

Syphilitic genital chancre has to be differentiated from (1) non-indurated chaneroid, (2) *herpes proies*, (3) epithelioma, and (4) boil.

(i.) The syphilitic chancre is due to infection from another syphilitic lesion, usually a mucous patch or condyloma, and contains the *spirochaeta pallida*, while

the chaneroid is due to inoculation from another chaneroid, and contains either the bacillus of Ducrey or a diphtheroid bacillus.

(ii.) The inoculation period of chancre is over 10 days, usually three or four weeks, of chaneroid three to five days.

(iii.) Chancre commences as a papule or erosion, chaneroid as a pustule or open ulcer.

(iv.) Chancre is nearly always single, chaneroid multiple.

(v.) Chancre ulceration is superficial, with a raised base and sloping edges, chaneroid forms deep perforating ulcers of rounded shape, with sharply cut edges.

(vi.) Chancre is red, livid, or copper-coloured, while chaneroid is whitish or yellow.

(vii.) The secretion from a chancre is scanty, and consists of blood-stained serum. It is rarely auto-inoculable. Chaneroid secretion is abundant, purulent and is readily auto-inoculable.

(viii.) Chancre is indurated; the induration is firm and circumscribed. Chaneroid, as a rule, shows no induration. If it has been irritated by caustics, it may show inflammatory thickening, which is not circumscribed, but shades off into the surrounding tissues.

In chancre the glands are indolently and uniformly enlarged in both groins. They are firm, movable, and not inflamed. Sometimes thickened lymphatic may be felt as hard cords from sore to glands.

In chaneroid the inguinal glands may escape altogether. If affected they enlarge symmetrically, are painful, tend to become adherent to the skin and deep fascia, and usually break down and suppurate.

It must always be remembered that a patient may be inoculated with the virus of syphilis and chaneroid together. In this case the chaneroid would run its typical course until, at the end of three or four weeks, one or more of the sores would take on the typical syphilitic induration.

Again, a man might be infected with syphilis and later on with chaneroid, just as the chancre was about to appear. It will thus be seen that it is never safe to tell a man he had not syphilis just because the existing lesions are chaneroid. He should always be warned of the possibility of co-incident syphilitic infection, and advised to have the blood examined when the sores have healed.

(2) Herpes usually affects the glans and inner surface of the prepuce. Its features of multiple, small vesicles, or erosions, with symptoms of heat and itching, should make the diagnosis easy.

(3) Epithelioma of the penis presents the usual features of that growth elsewhere. Its irregular base, heaped up, everted edges, slow progress and late involvement of the glands, should lead to its differentiation from chancre.

(4) A boil of the body of the penis might be mistaken for a venereal sore, but the marked inflammatory reaction and pain are quite different from chancre.

Extra-genital chancres may occur on almost any part of the body, but are most commonly seen on the lip and on the finger.

A labial chancre usually occurs near the mid-line. It starts as a fissure or erosion, which soon becomes markedly indurated. The lesion has a distinct appearance of standing forward away from the rest of the lip, and is usually much larger than the genital chancre. The surface, if broken, is smooth, and exudes a thin discharge, which tends to form a scab. The glands under the jaw and in front of the ears enlarge in a couple of weeks, and here again the enlargement is usually greater than an enlargement of the inguinal glands following a genital sore.

Digital chancre may appear as an indurated papule or an indolent crack, but the most usual form somewhat resembles a chronic whitlow. The terminal phalanx of the finger is red, swollen, painful and sensitive, while the whole area is indurated. This form is usually of slow development, and lasts a long time. It gradually loosens the nail, and often causes necrosis of the bone beneath.

Glandular enlargement is of the usual type, and should always be looked for in any chronic whitlow. The possibility of syphilis should always be remembered in the presence of any indolent sore, whatever its situation on the body. Even without treatment, the primary chancre tends to disappear. It usually leaves very little or no mark, so that the absence of a scar on the penis is no evidence that the patient has not had syphilis.

Secondary.—About six or eight weeks after the appearance of the chancre the secondary stage commences. It is characterized by enlargement of all the lymph glands of the body, lesions of the skin and mucous membranes, headache, fever, anæmia, and other evidences of constitutional derangement. This generalized glandular swelling is almost pathognomonic of syphilis.

The regions where it is best felt are the posterior cervical, occipital, submaxillary, and mastoid. The glands are hard, painless, movable and non-inflammatory. The commonest mucous membrane lesion is a diffuse redness of the fauces. With this there may be symmetrical shallow ulcers of the tonsils, or perhaps more commonly milk-white patches scattered over the palate and inside the cheeks and lips. These look just as if drops of white enamel had been painted on the surface. Absence of pain is very characteristic of these affections, and is in great contrast to the intense pain of aphthous ulcers of the mouth.

The early skin eruptions are characterized by (1) rough symmetry, (2) polymorphism, (3) absence of pain or itching, (4) peculiar coppery or raw ham colour.

The earliest rash is usually a macular, roseolous eruption, which first appears on the front of the abdomen and across the small of the back. It generally takes several days to develop, and is seen best when the skin is cold.

It consists of rounded spots, which fade on pressure, and vary in colour from pale pink to dark red. They are of varied sizes, and after the rash has persisted a little time there will almost always be found some spots which are distinctly papular, while again some of these papules have a dry scale on top, constituting the papulo-squamous lesion.

If the papulo-squamous lesions are in a moist situation, as between the thighs and round the anus, they become sodden and whitish, and constitute condylomata.

More advanced types of rash are the nodular, the pemphigoid or rupial, the pustular and the psoriatic syphilides. All secondary lesions contain spirochaetes in abundance, and the discharge from condylomata is virulently infective.

The nervous system is affected quite early in secondary syphilis. Headache is often intense, and has been found associated with increased pressure and lymphocytosis of the cerebro-spinal fluid, in which spirochaetes have been demonstrated, and by inoculation of which during the second stage a typical syphilis has been produced in apes.

Paralysis of the cranial nerves often comes on early in many cases of syphilis, while hemiplegia is not uncommon. Knowledge of this early involvement of the central nervous system is important when we come to consider treatment. The secondary stage may show many other lesions, such as iritis, orchitis, osteitis, periostitis, and transient synovitis. Patchy baldness is very common, and usually soon disappears under treatment.

Tertiary.—Tertiary or late syphilis is characterized by scanty number and scattered locations of the spirochaetes, consequently the lesions tend to be more or less isolated. In each case one organ or system seems to be singled out for attack; thus in one patient we get gummata of the skin, in another of the meninges.

Comparatively seldom do we see gummatous degeneration of several systems in the same patient. The site of a gumma is often determined by some local injury, and the unwary are often led away from the true diagnosis by the patient's history of antecedent injury.

Prophylaxis.

Before coming to prognosis and treatment, I shall briefly deal with the question of prophylaxis. All attempts to abolish syphilis by inspection and regulation of prostitutes have proved futile. There remains only personal prophylaxis, either by avoiding risk or by the adoption of measures to destroy spirochaetes that have gained entrance to the body. The work of Metchnikoff and his pupils has conclusively proved that this can be done by thoroughly rubbing the infected part with an ointment of calomel one part and lanoline two parts.

Ordinary mercurial ointment is also useful, but not so certain in its action as calomel. Watery and spirituous solutions of mercurials have no effect in preventing infection.

The shorter the period between inoculation and the use of calomel ointment, the more certain are we of destroying the spirochaete. Metchnikoff found absolute protection in all cases treated within three hours of inoculation, while after eighteen hours, inoculation gave no protection.

The hope of vaccination by an attenuated virus seems remote. Experiments have shown that with successive inoculations into a series of the lower monkeys the virulence of the disease diminishes, but inoculation from the last of the series into one of the higher apes reproduces a typical acute attack of

syphilis, with no mitigation of the severity of its manifestations.

With regard to the question of sexual relations, each man's conscience must be his guide, but I think that members of the medical profession incur a grave responsibility if they do not take every opportunity of informing young men that continence is not only possible, but is highly desirable from many points of view.

Be the cause what it may, higher ideals or fear of consequences, the vast majority of unmarried women remain chaste, while the vast majority of unmarried men do not. Despite assertions to the contrary, I believe the sexual instinct to be just as strong in women as in men, but while society condemns sexual gratification in one sex, it condones it in the other.

With increasing knowledge and increasing economic independence, women will not continue to agree to this double standard of conduct, and the whole future state of society will depend on whether they demand a higher standard from men or greater laxity for themselves.

A very practical point is the poor help our profession gives to the young man who does consult us on such matters. As a rule, it is a strong, athletic man, suffering from frequent nocturnal emissions. The weakly neurotic rarely is troubled much in this way. The man who has emissions two or three times a week, and often twice a night, is nearly always strong and vigorous, mentally and physically. Such a man has ideals, or he would not come to us for treatment. He would seek the more obvious remedy. Too often such a patient is treated as a neurotic, given bromides, which, in my experience, are quite useless, and then, either in despair of relief, or under medical advice, enters into illicit sexual relations.

Now, I have found that the sexual irritability in such cases can almost always be allayed by the injection of silver nitrate solutions into the prostatic urethra. A small, olive-headed catheter is passed just inside the *compressor urethrae* muscle, and 0.6 c.cm. of a 1% (10 minims of 5 grs. to the ounce) silver nitrate solution injected.

The injections are repeated at intervals of from four to seven days, varying with the reaction, and the strength of the solution is also gradually raised, if necessary, to 4% (20 grs. to the ounce). I have treated many patients in this manner, and have never failed to improve their trouble.

Prognosis.

Can syphilis be cured? The answer to this question depends largely on what is meant by the word "cure." If we mean that by long-continued treatment a patient with early syphilis may be relieved of all outward manifestations of the disease, may marry, have healthy children and live to a good old age, then we may call the disease curable.

On the other hand, however, we find many cases where, in spite of what is considered adequate treatment, and after the begetting of many apparently healthy children, syphilis shows itself as locomotor ataxia, general paralysis, aortic aneurysm, or gummata.

The Wassermann reaction tells us that in about 50% of these old syphilitic cases the virus is only

latent. The exact significance of the Wassermann reaction is still in dispute, but that it is an evidence of present rather than of past syphilis, is shown by the fact that it does not appear in the blood until spirochaetes can be found there, and the blood can by inoculation produce the disease.

It disappears with the spirochaetes when arsenobenzol or mercury is given, and after temporary absence it reappears before and during any exacerbation of symptoms. Spirochaetes have been demonstrated in the blood four or five weeks after appearance of the chancre. The Wassermann reaction can seldom be found before the sixth or seventh week.

Cases treated vigorously soon after the chancre develops may escape all secondary symptoms and never show a positive serum reaction. The reality of the cure in such cases has been shown by an entirely fresh infection with syphilis occurring some months or years afterwards.

Once the secondary rashes develop and the blood becomes positive the chance of an absolute cure becomes remote, and I do not think we can promise an absolute cure in any case that has reached this stage. This is not to say the patient need despair of his future.

Syphilis, if not susceptible of cure, is remarkably amenable to treatment, and surely a course of treatment each year is little enough insurance to pay to ward off the dread tertiary lesions which constitute the chief danger of the disease.

Treatment.

In the treatment of a syphilitic patient we must first see that his personal habits and surroundings are as hygienic as possible. Other things being equal, syphilis is always more severe in alcoholics, the debilitated, or the aged than in the young and vigorous. Smoking should be prohibited, because it irritates the mucous membrane of the mouth.

Irritation anywhere provokes syphilitic lesions, and the risk of infecting others from mouth manifestations is very great. The constant use of an astringent mouth wash, such as 1% solution of aluminium acetate, or a lotion containing tincture of myrrh and tannic acid, is also helpful.

The drugs having a specific destructive action on spirochaetes are mercury, and the organic arsenical preparations, salvarsan, neo-salvarsan, galy and arsenobenzol. Under treatment by any of these drugs the spirochaetes disappear from the blood and from all manifestations of the disease. The granulomatous deposits themselves are absorbed, while the Wassermann reaction becomes negative.

Unfortunately, this result is often only temporary, and if treatment be discontinued the disease will re-assert itself and show either a recrudescence of the original symptoms or, after a variable latent period, some later lesions, very often in the central nervous systems. This temporary improvement is especially deceptive after the use of salvarsan.

After one dose, spirochaetes have vanished in 12 hours from the chancre and from condylomata, whereas they have been found present seven to ten days after mercurial treatment. The Wassermann reaction usually takes from four to six weeks to dis-

appear, becoming progressively weaker during that time.

No wonder such results at first led observers to believe that in these new remedies we had discovered an absolute and speedy preventive of all the horrors of syphilis. It was soon found, however, that the improvement was but of short duration in by far the majority of cases. The first claim, that one dose would cure, was soon moderated to a recommendation of a course of salvarsan injections varying from four to ten.

At the present time, practically all syphilographers recommend that, in addition to a variable number of arsenobenzol injections, there should be treatment by mercury. At first they were content with a short mercurial course, but with lapse of time recrudescences of the disease and reappearance of a positive Wassermann reaction again proved that the treatment of syphilis must be prolonged.

At Rochester Row Venereal Hospital, in 322 cases tested after two years' treatment with mercurial cream injections, the Wassermann reaction three months after cessation of treatment was positive in 41.9%, while of 448 cases treated by 0.6 gm. salvarsan 17.8% showed a positive Wassermann reaction when tested two to six months afterwards.

As time went on a still larger percentage would probably have relapses; but these statistics, which have been corroborated by others, show how futile it is to expect any speedy cure of the disease. Even when the blood test is negative, the cerebro-spinal fluid often gives a positive reaction, and after the blood has been negative for some time, it is most important to have the cerebro-spinal fluid examined.

If there is lymphocytosis, a positive Wassermann or globulin test, then that patient can be saved from nervous degeneration only by most vigorous treatment. Accumulating evidence indicates that while there should be several injections of the arsenical preparations to get rapid control over the spirochaetes, these should always be followed by the administration of mercury for years, if not for the patient's whole future life.

It is not yet known whether relapses are to be explained by the fact that the spirochaete has a spore stage, which is resistant to salvarsan and mercury, or whether some of the organisms get locked up in the centre of granulomatous masses or in thrombi secluded from the blood stream, afterward multiplying and causing fresh lesions when drugs have been discontinued.

Technique of Treatment.

Salvarsan and its allied drugs may be given intravenously or intramuscularly. The subcutaneous method was abandoned at a very early date, on account of the sloughing which often followed. The disadvantages of the intramuscular method are that it causes in most cases a very painful, indurated nodule, and the surrounding inflammatory induration may be so great that absorption is seriously delayed.

I have excised one of these nodes two years after injection and found a fibrous sac containing several cubic centimetres of apparently unchanged salvarsan

emulsion. Some authorities prefer this method because absorption and elimination are slower; but surely, once the necessity of prolonged action is realized, it is much more reasonable to give repeated doses by a method where absorption can be relied upon.

If the intramuscular method be preferred, then I have found the simple acid solution of arsenobenzol or salvarsan in 8 or 10 c.cm. of water to give less pain and swelling than either the alkaline solution or the neutral emulsion. The two latter are prepared by adding to the simple solution in water 15% solution sodium hydroxide, drop by drop, until the yellow emulsion appears. If more hydroxide solution be added, the drug goes into clear alkaline solution. Novarsenobenzol, neo-salvarsan and galyl form neutral solutions, and require no alkali.

Intravenously these drugs may be given in concentrated or dilute solutions.

Analysis of the urine has shown that while arsenic is found in the urine for five or seven days after dilute injections (300 c.cm.) it persists for from 10 to 14 days when the drug is given in from 10 to 20 c.cm. of fluid. It is thus obvious that a longer interval must elapse between injections when the concentrated solution is used.

Patients who have had both methods, assure me that the small injection is much preferable in every way. The nervous strain is over more quickly, and there is much less subjective discomfort. The procedure is as follows: The actual injection may be done with a 10 or 20 c.cm. syringe, or with an ordinary glass syringe barrel or funnel attached by rubber tubing to a fairly wide bore needle. The edge of this should not be too long, otherwise there is a risk of puncturing both sides of the vein.

All apparatus having been sterilized, the tube of the drug is opened and emptied into 2 or 3 c.cm. of sterile distilled water. Stirring with a glass rod quickly causes solution.

If galyl, novarsenobenzol, or neo-salvarsan is used, the solution is simply brought up to 10 c.cm. by adding sterilized 0.9% saline solution made with distilled water.

If salvarsan or arsenobenzol is used, then the solution must be rendered slightly alkaline by the addition of sodium hydroxide solution drop by drop until the solution first becomes cloudy, and then, on the addition of a few more drops, becomes clear again. It is most important not to add more alkali than is necessary to clear the solution. The alkaline solution is then diluted with saline to the required amount. If dilution causes the least cloudiness another drop or two of alkali should be added, when it will become clear. It is important to have the mixing vessel, glass rod, and distilled water cold for the first solution, otherwise the powder is apt to form gelatinous masses, which are very hard to dissolve. This is the method I have found most useful.

Another way is to add the powder to 100 c.cm. of sterile distilled water in a large flask and dissolve by shaking. Then the alkali is added until first the neutral emulsion and then the alkaline solution is obtained. To this enough saline is added to bring the

total quantity of fluid up to 300 c.cm. As a rule, it takes about 20 to 25 drops of 15% hydroxide solution to form an alkaline solution of 0.6 grm. salvarsan or arsenobenzol.

To inject this solution it is hardly ever necessary to expose the vein by incision. Only in some cases in women is the subcutaneous tissue so thick that no vein can be felt through the skin.

In ordinary cases an elastic bandage round the arm, tied just sufficiently tightly not to obliterate the pulse, will cause numerous veins to become prominent on the forearm. They can be made still larger by the patient alternately opening and clenching his fist.

The skin having been painted with iodine or other antiseptic, the needle is passed through the skin in an almost horizontal direction, quite close and parallel to the selected vein, until it lies free in the subcutaneous tissue. If the point of the needle be then turned against the side of the vein, with steady pressure it will be felt to penetrate its wall, giving a very characteristic sensation to the fingers holding the needle.

The needle should then be passed some little distance along the lumen of the vein, which should move freely with the needle. The tourniquet is removed. If a syringe is used it is attached to the needle and the injection given. It is better to have two syringes ready, one containing saline solution, to be used before and after the drug.

If a funnel or two-way apparatus be preferred, we just run in normal saline solution, then the drug, and follow this up with more saline, to clear the arsenic away from the point of the puncture. Should any of the drug escape into the subcutaneous tissues, it will be followed by great pain and swelling of the part, which will present a large, tense, red, painful mass, resembling an abscess. This swelling should on no account be opened. The reaction caused by the arsenic will in all cases subside with the use of fomentations and a sling. If an incision is made, an infection by skin staphylococci is added to the aseptic arsenic necrosis.

In about one case out of five there is some general reaction, though I have found this much less common since I have adopted the use of concentrated solutions.

Sometimes the patient, during or immediately after the injection, feels faint, has a peculiar taste in the mouth, shows a pale, sweating skin and dilated pupils. This usually passes off quickly; but, in any case, some adrenalin chloride should be at hand, for these symptoms are relieved at once by injection of 0.5 to 0.6 c.cm. of this organic extract.

More usually the patient is well until some three or four hours after the injection, when he gets headache, vomiting, diarrhoea and a rise of temperature. This reaction is not so common as it used to be before all solutions were made with freshly distilled, sterilized water. It has been ascribed to some pyrogenic substance gaining access to the water when it is allowed to stand.

A few fatal cases have occurred after intravenous injections of salvarsan. In nearly all of them the patient was well for three or four days, then vomiting, diarrhoea, convulsions, and coma occurred. Post-

mortem, these people showed punctiform hæmorrhages of the brain, with intense congestion of the kidneys and liver. They nearly all came on after a second full injection dose had been given within one week of the first, and were in all probability due to acute arsenical poisoning in a subject predisposed by idiosyncrasy or by renal inadequacy.

These fatalities teach us that no patient should have a full dose of 0.6 gm., unless the kidneys are perfectly sound, and that there should be an interval of at least ten days before the second injection is given.

Similar injections should follow every 10 to 14 days until the Wassermann test is negative, both in the blood and the cerebro-spinal fluid.

After this, mercury should be continued for a long period. In my opinion, mercury in some form should be taken, if not continuously, at least occasionally, for the remainder of the patient's life. Of the use of luargol I have had no experience.

Mercury or its salts may be given by the mouth, by inunction and by intravenous or intramuscular injection. The essential factor is the mercury itself, which acts directly as a destroyer of spirochaetes.

The primary chancre should be dressed with 33% calomel ointment. Some prefer to use it as a powder with zinc oxide, or in the old form of "black wash." The merits of mercury in syphilis were not properly appreciated for a long time, because the older physicians thought that to get any benefit the patient must be severely salivated.

The tradition of the horrors patients then endured has persisted to the present day, making men afraid of their most potent agent in the treatment of syphilis. I feel sure that this traditional fear is at the bottom of the advice given by most authorities to use interrupted courses of treatment.

Jonathan Hutchinson, senr., was the one great exception. He insisted that mercury must be given continuously for at least two years. It does seem so much more reasonable to keep up a continual attack on the organisms, never giving them a chance to multiply, than to give periodic rests, with resumption of treatment only when the Wassermann reaction becomes positive again, as it usually does.

How do we know that in one of these recrudescences just that particular infection which determines a general paralysis or a locomotor ataxia, may not take place? I always recommend that, after the blood and cerebro-spinal fluids give a negative reaction, mercury in some form should be taken continuously for at least three years, and then if the patients are wise they should have intermittent treatment for the rest of their lives.

To take the various methods in detail:—

The form most generally ordered to be taken by the mouth is *hydrargyrum cum creta*, 6 to 12 centigrammes of which is ordered as a pill, with an equal quantity of Dover's powder added to check any griping or tendency to diarrhoea. One of these pills with food three times a day continuously for two or three years constituted Jonathan Hutchinson's treatment of syphilis, and very many of his patients remained healthy and had healthy children.

Some give tannate of mercury (0.03 gm.) thrice daily; but I have found this sets up abdominal pains.

Many use *liq. hydrarg. perchlor.*, either alone or with iodides; but this mixture is abominable to take, and, in my experience, always sets up intestinal irritation.

Inunction is not much used here, except in children. It is a very useful method, and by its means patients can be rapidly brought under the influence of mercury. After a warm bath, from 3 to 4½ grammes of mercurial ointment (1 in 2) is rubbed into a non-hairy part, until the surface is not greasy, but shiny, as if black-leaded. Next night the procedure is repeated in another part, and so on. The objectionable staining caused by mercurial ointment can be avoided by using an ointment of 1.8 grammes of calomel, made up with 1.2 grammes of lanoline and 0.6 c.cm. of olive oil. Out here, very few patients will submit to the discomfort of this method; but the use of this calomel ointment should always be remembered in children.

Undoubtedly the surest method of saturating the body with mercury is by injection. The gastro-intestine and the skin may absorb very little; but after injections, mercury can always be detected in the urine.

A simple test is to acidulate the urine, then place a piece of copper in it and keep it warm for 24 hours. The mercury will deposit on the copper. If the copper be then heated in a flask with a little iodine, red crystals of mercuric iodide will appear. Injections may consist of soluble salts, insoluble salts, or the metal itself. The last is by far the best. Soluble salts, such as *hydrargyri perchloridum* are very painful if injected subcutaneously. If injected intravenously they are painless; but their chief disadvantage is the rapidly with which they are excreted.

To get efficient treatment with these salts, injections must be made daily, and few patients can afford the time or the money for this.

Insoluble salts, such as the salicylate and calomel, cause much more pain than the metal itself does, and are not more efficacious, except that calomel, when injected, seems to have a much more rapid action in killing spirochaetes than has metallic mercury.

For this reason it used to be given first in malignant cases, to get them more rapidly under control; but the newer arsenical preparations have now largely superseded calomel for this purpose. Mercury and calomel for injection were formerly made up with liquid paraffin, but Lambkin's formula is a great improvement. It consists of a base of palmitin, isomeric with one of the body fats, with "*creocamph*," a mixture of equal parts of pure creosote and camphoric acid. It is made up in glass tubes by Oppenheimer and Burroughs Wellcome, each tube of 1 c.cm. containing 0.09 gm. mercury, or 0.045 gm. calomel. The "*creocamph*" is a powerful antiseptic, and also an analgesic.

The amount of pain varies in different individuals. It does not come on till next day, and is then described as like that of a bruise. While pain invariably follows the injection of calomel, it is usually quite negligible when mercurial cream is given.

I have given an injection every week for three years to a man who played first-grade cricket and football

during the whole period. Care must be taken in details. The needle should be long enough to reach well into the muscle. The cream, having been slightly warmed by immersing the tube in hot lotion, is placed in the syringe before adjusting the needle, for two reasons. First, it is difficult to draw the thick cream through the needle; secondly, if there is any cream in or on the needle at the time of puncture, it is apt to leave a painful spot in the subcutaneous tissue.

The best area for injection is the upper buttock, and it is well to follow a definite plan, thus, taking 2.5 cm. from mid-line the first time, the second week a corresponding spot on the opposite buttock. The third and fourth injections should be 5 cm. from the mid-line, and so on, using alternate sides each week.

Skiagrams show persistence of mercury for about six days at each site of injection. The average dose should be 0.6 c.cm. (0.06 gramme) of mercury every week. The dose should vary with the body-weight and also with the severity of the lesions.

Lambkin and Fournier both strongly recommend starting treatment with three or four injections of calomel; but the pain caused by its use counterbalances its advantages, especially now, when we can get even more rapid action by salvarsan.

McDonagh strongly recommends colloidal mercury. I have used injections of colloidal mercury, and have found them quite painless, but have not yet had sufficient experience with the drug to determine its value.

I have given many hundreds of injections of Lambkin's mercurial cream, and have never once seen a local abscess, and, still more important, have never once seen any evidence of mercurial poisoning. As with salvarsan, it is important to see that the kidneys are healthy before starting treatment. If albuminuria is present, then the dose must be small and the urine carefully watched. Sometimes the albuminuria is caused by syphilitic congestion of the kidneys, and clears up rapidly when mercury is given.

Iodides.—The function of the iodides in syphilis has been much misunderstood. It is now generally admitted that they have no power to kill spirochaetes. They cause resolution of the small cell masses set up by irritation of the syphilitic organisms, just as they promote absorption of any inflammatory exudate.

They are thus most useful in the later syphilides, where cell aggregation is such a marked feature. By dispersing this they allow mercury access to the spirochaetes, and also, of course, do great good by preventing a gumma degenerating into fibrous tissue or caseous material.

Iodides are best given in large doses of at least 1.2 grammes three times a day, for not longer than a fortnight at a time. If continued longer than this they are apt to set up unpleasant symptoms in the shape of acneform eruptions, dyspepsia and great depression of spirits.

Treatment of Syphilis of the Nervous System.

Soon after the introduction of salvarsan, many cases were recorded in which, from four to twelve months after injection and disappearance of outward

signs of the disease, there occurred paralysis of one or more cranial nerves.

This was at first put down to the drug, but careful investigation of cases led to the discovery that the central nervous system was usually involved in secondary syphilis. These paralysees had not been so frequent under mercurial treatment, because it had been continued; but when it was thought that one injection of salvarsan killed all the spirochaetes, no further treatment was given, and hence the nervous system involvement went on to numerous paralysees.

It is now generally admitted that all these paralysees are syphilitic, and promptly respond to more salvarsan or to mercury.

During the last few years attempts have been made to modify the course of the later nervous syphilides, general paralysis, and locomotor ataxia by means of treatment through the cerebro-spinal fluid.

The outlook is not very hopeful, when one considers the actual pathological conditions present in these diseases. The central nervous system differs from other organs of the body in that its essential cells are not regenerated. Failure of ordinary antisiphilitic treatment to cure these diseases has led observers to believe that the fault lay in some inability of the remedies to reach the affected part, rather than in the peculiar nature and essential function of the cells involved.

I do not see any reason to believe that the cells of the central nervous system are more remote from, or less dependent on, the circulation than those of any other part of the body. All evidence points to the exact contrary being the case. Surely, then, it is much more rational to treat these diseases through the blood than through the cerebro-spinal fluid, which probably has a supporting, and not a nutritive, function.

Any temporary improvement following intrathecal injections may simply be due to its irritating action promoting increased blood supply. Analysis of the cerebro-spinal fluid 24 hours after intravenous injection of salvarsan (Sallis, Strauss, Kaliski, *American Journal of Medical Sciences*) has shown the presence of free arsenic, thus disposing of one argument of the advocates of direct spinal medication that intravenous treatment did not reach the cerebro-spinal fluid.

I have used two of the methods advocated: (1) Injection of the patient's own serum after salvarsan. (2) Injection of patient's own cerebro-spinal fluid, to which neo-salvarsan had been added. I have given these methods up because (1) they are more dangerous (paralysis has followed injection of six milligrammes of neo-salvarsan into the spinal theca); (2) they are more painful; (3) they do not give better results than intravenous injections; and (4) most of all, they do not seem to be based on the known pathology of the disease.

The first method was that of Swift and Ellis, who, one hour after a full dose of salvarsan, drew off 30 c.cm. of blood, centrifuged it, heated the serum to 50° C. for one hour, and then injected it into the spinal theca, after drawing off a similar quantity of cerebro-spinal fluid.

Others have added two to six milligrammes of neo-salvarsan to the serum obtained, without any preliminary intravenous injection. A more simple plan is to add the same quantity of neo-salvarsan or novarsenobenzol to the patient's own cerebro-spinal fluid.

Recently, Byrnes, of the Johns Hopkins Hospital, has introduced the use of mercurialized serum, with which he claims to have attained better results than with the other methods. Thirty cubic centimetres of blood are drawn off and centrifuged. To 2 c.cm. of the serum is added a dose of perchloride of mercury, varying from 0.0012 to 0.02 gramme. An albuminate is formed, which redissolves on adding more serum and stirring until the mixture has a volume of 10 c.cm. This may be used as it is, or diluted to 20 or 30 c.cm. with saline solution. The mixture is heated to 50° C. for an hour, and then injected, after drawing off a corresponding quantity of cerebro-spinal fluid. Some observers claim to have obtained benefit from injection of normal horse serum.

These methods probably all act by promoting increased vascularity of the diseased areas.

Chancroid, being a local infection, is best treated by drying the individual ulcers, and then cauterizing them with pure carbolic acid. After this, they should be frequently dressed with eusol, a lotion obtained by adding 30 c.cm. each of chlorinated lime and boric acid to 2½ litres of water.

If the glands suppurate, they should be opened early, and fomented with the same lotion. In cases showing Duersey's bacillus only, vaccines have not been successful; but where there is a diphtheroid bacillus present vaccines of this have been of great benefit.

Reports of Cases.

NEPHROTOMY FOR COMPLETE SUPPRESSION OF URINE IN A CHILD.

By H. I. Holmes, M.D., B.S.,
Honorary Surgeon, Warrnambool Hospital.

Complete suppression of urine in a child appears to be of such unusual occurrence as to merit record, but my reason for reporting this case is more with a view of indicating the probable value of nephrotomy in cases in which this occurs, and especially if the kidneys have previously been in a more or less healthy state.

H.G.R., *act.* 1 year and 8 months, was treated by me nine months previously for pneumonia, made a normal recovery, and had since developed well, with no indication of any organic disease. The present history obtained indicated that on July 6 he was quite well; on the 7th he had looseness of bowels and seemed "off colour," but slept well that night; on the 8th he seemed heavy, but was happy and playing about, and again slept well. On the 9th he vomited after his morning food; his appetite was poor all day, but he was passing urine very frequently, especially towards evening, and apparently in small amounts. On the 10th he again had looseness of bowels, with yellowish-green stools, similar to that of the 7th, but was not passing any urine. He slept badly that night, and seemed to be in pain. On the following day he was brought in to me for examination. He was a thoroughly well nourished child, but inclined to pallor. He was drowsy, but restless at intervals and when disturbed. His mother stated that he may have been eating box-thorn berries (which, as far as I know, are non-toxic), and was in the habit of eating dirt, having done so as recently as three days previously. A mixture of *liq. ammon. acct.*, 1.00, *spir. aeth. nit.*, 0.3, was ordered to be taken every three hours, some doubt being expressed that the child

had not passed any urine, but that night the child was very restless, apparently in pain, and I was called out at 5 a.m. (12th) to see him. As the child appeared to be in pain, though there was no evidence of a full bladder, I passed a catheter, but there was not more than perhaps five or six drops of urine, which ran out of catheter after withdrawal. Hot baths, linseed poultices to the loins, and barley water to drink were ordered, the child seeming to be at ease while in bath. Vomiting occurred at intervals during the day; there had been one large brown stool. Though the child was easy while in the bath, there was no general improvement. He was therefore transferred to a private hospital. *Hyd. subchlor.*, 0.01 gm. (gr. ¼), hourly was ordered. Eight doses were given; two were vomited. The child passed a fair night, sleeping in kneeling position.

On the following day (13th), there was a fairly good stool, followed by two others, greenish with mucus; saline solution was then ordered, *per rectum*, barley-water, hot water and medicine (as above) given by mouth; the baths and poultices were continued.

The same evening there were signs of twitching, still occasional vomiting; but the general condition was quieter than prior to admission. Another unsuccessful attempt to secure a specimen of urine by catheter was made. On the 14th occasional vomiting continued. The patient was much quieter, and there was very little evidence of pain. After consultation saline solution was given subcutaneously, and hot wet packs. The saline infusion was continued *per rectum*. The bowels acted occasionally, with small motions. The twitchings became more marked and in the evening convulsions became frequent and persisting. No action of skin had occurred after the hot packs and 0.00083 gm. (gr. 1/100) pilocarpine.

As the child would obviously die in a very short time unless relieved, it was decided to perform nephrotomy, which was done at midnight, the child then being quite unconscious. With an oblique incision through tissues infiltrated with fluid, though oedema of tissues was not marked previously, the right kidney was exposed, and was seen to be quite black in colour, "splenic." The child's condition was now very grave. The kidney was opened along about two-thirds of its length. It was enlarged and tense, the colour and appearance being similar to that of a normal spleen seen post mortem. A drain tube was placed in its pelvis, at the upper portion, and gauze packed around and dressings applied. Following the operation there was marked improvement; no more convulsions occurred, the twitchings gradually became less marked during the course of the next three days. On the morning following the operation the dressings smelt obviously of urine, and the amount of soakage increased during the course of the next two days, but was never of sufficient amount. The general appearance became more of a pale subacute nephritis, cedematous, etc. The general condition improved considerably, the child taking some of the drinks well, while refusing others, and sleeping well. Consciousness was well restored, even to extent of playing with its mother's watch. The bowels were opened, and normal stools were passed; but there was no definite sign of urine *per urethram*, indicating that the other kidney had not resumed function. On the 17th (eighth or tenth of disease), although so much improvement had occurred, the general condition was not satisfactory; 0.00083 gm. (gr. 1/100) pilocarpine and a hot wet pack were ordered, but the child became very bad after entering pack, and had to be removed. It seemed to pick up again, but two hours later collapsed and died.

Prior to the convulsions the temperature was never above normal. The pulse-rate was from 90 to 108. When the convulsions set in, the temperature rose to 37.5° C., and the pulse-rate to 122; after the operation the temperature came to normal and the pulse-rate to 80 to 90.

The points which impress me as worthy of record in this case are:—

- (1) The onset was similar to a case of acute nephritis, but there was no rise of temperature.
- (2) The early age of the child. Still records one case in a child, aged 1½, who died in 17 days.
- (3) The early and complete suppression of urine, immediately following a period of increased secretion.
- (4) The early death, which occurred on the eleventh day from first signs of illness, and which, if nephro-

tomy had not been performed, would have occurred on the eighth day.

- (5) The intense engorgement of the kidney, similar in appearance to that seen in strangulation of bowel or other organ.
- (6) The absence of a rise in temperature or pulse-rate, though the condition was probably due to a toxic agent, I presume derived from the gastro-intestinal tract.
- (7) The marked relief to the general condition following nephrotomy; the establishment of secretion following it with drainage of pelvis of kidney. There was no sign of urine in the pelvis of the kidney when opened.

Thomson Walker is the only authority I have so far ascertained who recommends nephrotomy for suppression of urine in infective conditions.

I regret that I did not perform nephrotomy much earlier, but was accepting the parents' statements *cum grano salis*, and was hourly expecting some secretion of urine. I also regret that I was unable to secure a pathological examination of the body and subsequent microscopic examination of the kidneys.

TWO UNUSUAL CASES.

By L. St. Vincent Welch, M.R.C.S., L.R.C.P.,
Abermain, West Maitland.

S.J., female, *act.* 15 years, complained of pain on the plantar surface of the left great toe, close to the phalangeal joint. The pain was first noticed seven months ago, but was not severe at first. During the last few weeks the pain has become so acute as to prevent walking, except on the heel.

The patient noticed a swelling gradually developing at the seat of the pain.

On examination a swelling could be plainly seen filling up the natural flexure of the toe with the foot. The joint was freely movable, but pain was elicited on palpating the swelling. The condition was diagnosed as a ganglion of the tendon of the *flexor longus*, and the patient was advised to have the trouble dealt with surgically.

An incision was made down the lateral (outer) aspect of the joint and the tumour exposed.

It was then found to be not a ganglion but a lipoma, which, with very little trouble, was freed from its capsule and shelled out. It was lying in the connective tissue, superficial to the tendon sheath. The wound was closed with a continuous horse-hair suture.

The tumour weighed 4.5 grammes (67 grains), was of a pale yellow colour, and besides its ordinary lobulated character, was grooved where it had lain on the tendon sheath.

I can find no mention of a lipoma in this situation in any recorded case.

The patient is a well-nourished girl, but by no means over fat.

Case II.—K.D., *act.* twelve years, complained of repeated attacks of pain in the region of the appendix. During these attacks the temperature was not raised, and the pulse-rate was never above one hundred.

The mother was advised to keep a sharp look out for thread worms, and to give quassia infusion injections at night. No worms were ever found in the motions, though two other children in the same family frequently passed them.

Eventually, after a more severe attack than usual, it was decided to remove the appendix, as this was evidently the source of trouble. The abdomen was opened over McBurney's point and the appendix easily found.

It was thick, swollen and inflamed, with a few adhesions to the caecum. It was removed, and a purse-string suture employed to bury the stump. On examination, it was found packed with thread worms in a most active state.

The child made an uninterrupted recovery, and picked up wonderfully. I think that the interest of this case lies

in the fact that at no time had worms been discovered, though they had been carefully looked for and suspected, and that, with inflammatory trouble present to a marked degree, neither temperature nor pulse showed the slightest indication of what was taking place.

Reviews.

PARTIAL STRANGULATION.

In a small octavo volume, of something like 200 pages, Dr. Walter G. Walford¹ endeavours, with much enthusiasm and not a little literary skill, to put the dangers of tight neckwear in a lurid light, as they have often appeared to himself. Like many special pleaders, Dr. Walford over-colours his own case, with the result that the reader instinctively doubts the exactness of the observations. It is also apparent that the author intends his book for laymen, for some simple medical terms are explained in footnotes. Generally speaking, Dr. Walford's main thesis may be granted without opposition. There can be no doubt as to the dangers of tight neckwear. It not infrequently leads directly to sudden death, and there must be many stages between the hangman's rope and the tight starched collar. The author has one commendable feature. He is never dull, and his contention that simple measures are productive of great results is one always worthy of attention.

CIRCULATION AND RESPIRATION.

A formal review of the papers collected in the volume entitled "Circulation and Respiration," by the late Sir Lauder Brunton² is impracticable from the multitude of the topics and the varying dates of their appearance, ranging as they do over nearly thirty years. The well-known style of the author needs no description. It often suffers from its own homeliness, so that the superficial reader puts it down as trite and trivial, but a closer acquaintance shows Brunton always as a keen observer, and as one not ashamed to record the simplest observation which promised any practical result. Much that was Brunton's originally has become so accepted that its origin is forgotten. Such, for example, are his introduction of vaso-dilators in the treatment of *angina pectoris* and his views on the failure of respiration in overdose of chloroform. The papers in the volume under notice have no sequence other than being arranged in order of publication. Their subject-matter ranges from "A Case of Fatal Result of Water-drinking" to the most intricate physiological problems in the action of various drugs. The collection is a valuable stimulus for any reader, both from its variety and its frequent suggestiveness of new lines of research. None of the papers can ever be quite out of date, although medical science has in many directions passed to new interests, both at the bedside and in the laboratory.

AUSTRALIAN ARMY MEDICAL CORPS COMFORTS FUND.

Notwithstanding the success of the Garden Fête which was held at the residence of Professor Sir Thomas Anderson Stuart on October 13, 1917, in aid of the Australian Army Medical Corps Comforts Fund, those in charge of the Depot are still in need of financial assistance. We have to express our thanks this week to one contributor.

	£	s.	d.
Amount previously acknowledged	74	17	0
Dr. Frank R. Legge (Swan Hill, Victoria)	3	3	0

¹ Dangers in Neckwear, by Walter G. Walford, M.D.: 1917. London: H. K. Lewis & Co., Ltd.; Crown 8vo., pp. 171. Price, 4s. net.
² Circulation and Respiration; Second Series, Clinical and Experimental, by T. Lauder Brunton, M.D., D.Sc., LL.D., F.R.C.P., F.R.S.: 1916. London: Macmillan & Co., Ltd.; Demy 8vo., pp. 719. Price, 6s. net.

The Medical Journal of Australia.

SATURDAY, OCTOBER 20, 1917.

The Hospitals Bill.

The administration of the general hospitals in Tasmania has been the subject of comment for many years. Certain defects have grown up with the chief institutions, and some of these defects have led to a partial failure of the hospitals to fulfil their functions. The Hobart General Hospital and the Launceston General Hospital were placed on a definite footing in law by Acts which bear the date of 1878. In 1882 and in 1900 fresh legislation was introduced dealing with the Launceston General Hospital. In the year 1914 the Governor of Tasmania appointed a Royal Commission, in the person of the then Chief Health Officer, to enquire into the administration of the hospitals of the State. It is unnecessary to refer to the findings of this Royal Commission again in this place, beyond stating that one of the principal recommendations was that of nationalization of the hospitals. The hospital question was apparently not furthered in the least by this enquiry. But the fact remained that there was a need for the better administration and conduct of the hospitals, and more particularly for some guarantee that the hospitals would fulfil the functions for which they were created. During the term of office of Mr. Ogden as Chief Secretary, a Bill was introduced into Parliament, but failed to find favour. The present Chief Secretary has recently had a further Bill drafted, and moved the second reading of this Bill in the House of Assembly on October 3, 1917. In justifying the measure, he referred to the dispute with the Tasmanian Branch of the British Medical Association and to the fact that he had not been able to obtain any assistance from the Association in framing it. The fundamental principle on which the Bill is constructed, is that the hospitals of Tasmania shall be open to all citizens alike. The Chief Secretary could scarcely have expected to have received assistance and advice in the framing of a measure which was founded on a principle that

has been definitely opposed by the British Medical Association throughout the whole of the Empire. It is a matter of surprise that we read in his speech that, when he approached the leading medical men, who were members of the British Medical Association, he received a great deal of assistance and advice in framing the measure. The opinion expressed by the Chief Secretary in regard to the motives which induce medical men to accept positions as honorary medical officers of public hospitals need not detain us, as this matter is entirely irrelevant.

There are two vital points contained in the measure. The first is the constitution and the powers of the body in whom the management is vested, and the second is the conditions under which the patients may secure the advantages offered by the institutions. In regard to the first point, public hospitals districts are to be set up, and in each district there is to be a public hospitals board. In the case of Hobart and Launceston, the boards are to consist of five members appointed by the Governor of the State, three members, of whom one shall, if practicable, be an executive officer of a friendly society, to be elected by the municipal council of the city, and the ninth member is to be the mayor of the city. It will be noted that these boards will be largely nominee boards, and consequently the door will be kept open for all the defects which have been allowed in the past to disturb the smooth working of the two large hospitals of the State. The other members will be appointed by the municipalities. Experience teaches that no more unsuitable bodies than city councils and local health authorities could be selected for this purpose. The subscribers have no representative. The Chief Secretary stated that there are no subscribers worth mentioning. The medical profession is not to have any representative on the Board, nor are the medical staffs of the hospitals. The Chief Secretary did not think it necessary for doctors to be on the board. Medical men would not be of greater assistance in dealing with the administration of the institutions than others. Summed up, the proposed hospitals boards will comprise citizens, no doubt excellently versed in business matters, but uneducated in hospital management. Not a single expert will be able to handle the many matters requiring technical knowledge and personal experience of the inside working of hospitals. The

average member of a hospital board has but little opportunity of ascertaining the requirements of the institution over which he had control, save through the responsible medical officers. To set up a board which shall consist of the nominees of politicians (the nomination by the Governor means on the advice of his ministers) and of the representatives of city councils and possibly of friendly societies, does not augur well for the future of the Tasmanian hospitals. In order that the official view may be prominent at all times, the Chief Health Officer is charged with the administration of the measure, and has the right, under certain conditions, to attend the meetings of the boards, to speak at these meetings and to act as adjudicator in the case of disputes and difficulties. Tasmania is fortunate at present in having a very able Chief Health Officer. It has not always been so fortunate. Under less favourable circumstances, the departmental officialdom of the boards would be emphasized by this system of control.

The second aspect of importance in the Bill embraces the conditions of admission to the hospitals and the liability of patients. Every public hospital board is to maintain every public hospital under its control for the reception, relief, care and treatment of sick persons; there is to be no discrimination in respect of social position or otherwise between patients. No private accommodation may be provided for any patient in a public hospital, whether the patient be prepared to pay for this or not. The board is to have power to frame by-laws regulating the admission or discharge of patients. Since the hospitals thus become open institutions for the treatment of the sick, and their charitable character destroyed, the attitude of the medical profession toward them must be entirely changed. Under these conditions, it becomes impossible for a member of the British Medical Association to occupy the position of member of the honorary staff. It is further provided that every patient shall be liable to contribute towards the relief extended to him such sum as the board, having regard to his means, shall demand. The ability to pay or the means of every patient is to be enquired into, and, in the event of inability to pay, the person is to sign a statutory declaration to that effect. No destitute person shall be refused the bene-

fits of a public hospital by reason only of inability to pay therefor. Be it noted that originally a hospital was established for the purpose of providing medical treatment and nursing for the poor! The board is to appoint the medical officers, subject to the approval of the Minister. In the case of the city public hospitals, there is to be a surgeon-superintendent, who is to be the head of the institution and supervise both paid medical officers and the "hospital." It is not clear from the wording whether or not the surgeon-superintendent is to have control over the honorary medical officers, if any. In his speech, the Chief Secretary stated that a well-to-do patient would be required to pay for the services of doctors and nurses, and for general treatment, but that the doctor should not be allowed to charge a fee to a patient in a hospital. The right of conducting a consulting practice outside is to be conceded to the surgeon-superintendent, according to the Chief Secretary. None of these matters are specified in the Bill. These are conditions which can never command the approval of the British Medical Association. Even in the case of a salaried medical officer being employed, the proposal to require him to attend rich men, from whom his colleagues outside would expect full fees, without extra remuneration, while the hospital has the right to charge extra payment for medical services, is preposterous. The method of election of the medical officers is one which is to be resisted. Every vacancy in the medical staff of a public hospital should be advertised, and no appointment should be made by a board composed exclusively by laymen, whose judgement of capabilities is obviously insufficient. Laymen at times have so little knowledge in this regard that they are unable to discriminate between the degrees recognized by the General Medical Council of Great Britain and Ireland and those which are not even registerable in America. It will thus be seen that the Bill, as drafted, will not meet with the approval of the medical profession in any of the more important particulars. It is to be condemned in the public interest, for it does not guarantee the best treatment for the sick poor. It will not remedy the defects which have obtained in the Tasmanian hospitals for many years, and it will be detrimental to the interests of the medical profession. What its fate will be in Parliament the future must unfold.

THE MOTION OF THE MAMMALIAN HEART.

William Croone, of Cambridge, a contemporary of Hooke and Mayow, gave a sum of money to the Royal Society of London, of which he was a member in its infant age, for a yearly lecture to encourage the study of muscular motion. Thomas Lewis has taken the contraction of the mammalian heart as the subject of the Croonian Lecture¹ for 1917. William Harvey, of immortal memory, noted that the motions of the ventricles and auricles took place consecutively, so that a kind of harmony or rhythm was preserved between them. In the days of Haller this sequence was attributed to a peristaltic wave of contraction passing from the auricles to the ventricles. After the discovery of ganglionic nerve cells in the walls of the heart, the beat of that organ was ascribed to the action of this nervous tissue as an automatic centre ordering the contraction of the chambers. The labours of W. H. Gaskell made it evident that the ganglia of the heart were no more than morphological devices for the distribution of nervous impulses, arising in the bulb and spinal cord, to the cardiac muscle cells. Gaskell was able to demonstrate that the wave of contraction spreads through the heart along the muscular tissue and that the sequence of the events depends on the anatomical arrangement of the bands of muscle fibres. When these facts had been sufficiently confirmed, attention was turned to the precise point at which the contraction originates, and to the exact paths along which the natural wave travels through the heart. The discovery of the string galvanometer furnished a means for following the movements of the different parts of the heart with accuracy. The use of photographic registration of the electrical changes in the heart gave a suitable record of the rapid alterations of the cardiac muscle, without any material interference with the motion of the heart by mechanical contrivances.

Each heart-beat starts in the sino-auricular node, a mass of neuro-muscular tissue lying in the neighbourhood of the mouth of the superior *vena cava*. This area becomes negative to all other points on the auricular wall at the beginning of the beat. The contraction spreads at the rate of a metre a second from this region over the auricular wall. It ascends the superior *cava* against the blood stream. When it reaches the mouths of the inferior *cava* and of the pulmonary veins, it involves their walls. It traverses the auricular appendages from base to apex, and it passes along the auricular septum towards the ventricles. The muscle fibres are arranged in diverging lines from the sino-auricular node as if to assist the conduction of the contraction. The observations of MacWilliam, Flack and Lewis have shown that the rate of the heart-beat in mammals is lessened by cooling the sino-auricular node, and that no reduction in speed is provoked by cooling any other region of the mammalian heart. These experimental studies confirm the view that the impulses which promote the rhythm, are born in the sino-auricular node.

The conduction of the wave of contraction is delayed at the auriculo-ventricular groove. It was not until

the discovery of the muscular bundle, running from the auricle to the ventricle in the septum, by Stanley Kent, that it was possible to account for the systole of the ventricle by the passage of the wave of contraction along muscular paths from the auricle. This muscular bundle separates into right and left divisions, which become connected with a network of highly differentiated cells lying beneath the endocardium. These cells, known as Purkinje's cells, form a basketwork lining the walls of each ventricle. Physiologists readily accepted the view that this bundle conducted the impulse from auricle to ventricle. With the aid of the electro-cardiograph, maps were made of the walls of the ventricles, showing the order in which the various parts contracted. The first attempts to map out the path of contraction in the ventricular walls showed that no simple account could explain the sequence of contraction. Many parts of the wall contracted simultaneously, and these areas were so arranged that no radial wave of contraction traversing the ventricular walls, would explain the distribution. Although the muscle fibres of the heart are arranged in layers, encircling both ventricles and apparently formed of continuous bundles of muscle fibres, the wave of contraction did not travel along these bundles. It was, however, observed that the wave travelled in these layers over the surface of the right ventricle from the inter-ventricular margin, when the right division of the auriculo-ventricular bundle was cut. Later experiments showed that contraction spread along the conus of the right ventricle towards the pulmonary artery after a deep incision separating the superficial muscle fibres of the conus from the remainder of the ventricle, with the same speed as before the incision. It was also noted that the electrical changes at any spot on the ventricular surface were not altered in time by a deep circular cut surrounding the spot, but were much delayed by undercutting the observed spot. It thus became obvious that the wave of contraction spreads from within outwards to the superficial muscle fibres of the ventricle.

A careful survey of the information available to Lewis on the order in which the different parts of the ventricle undergo contraction, revealed to him two paths carrying impulses with different velocities. The muscle fibres of the ventricle transmit the wave at a speed of 500 mm. per second, but the Purkinje's cells conduct the impulse at a velocity of 5 metres per second. The time of contraction at any point in the wall of the ventricles is determined by the length of Purkinje's fibres from the auriculo-ventricular junction to the region in the lining of the ventricle corresponding to the point and by the thickness of the wall of the ventricle. The wave of contraction is delayed in the small muscle fibres at the auriculo-ventricular junction. It passes into the bundle, and is distributed with a high velocity over the internal surfaces of the walls of the ventricles. It then traverses the ventricular wall outwards at a low speed. In consequence of this arrangement, the ventricular muscle fibres contract simultaneously over a considerable area of the chamber. There is no wave passing along the ventricular wall, but the various layers contract more or less together over the whole of the ventricle.

¹ *Proceedings of the Royal Society of London, B.*, Vol. LXXXIX., p. 500, 1917.

A mechanical advantage is thus gained for the ventricle as the driving muscle for the blood stream.

The association of function and structure is well illustrated in the varying degrees of conductivity exhibited by the mammalian cardiac muscle cells. The cells of Purkinje are the largest striated cells, and possess the highest content in the carbohydrate glycogen. They conduct most rapidly. The fibres at the auriculo-ventricular junction are the smallest found in the heart. They are almost devoid of glycogen, and conduct most slowly. The fibres of the walls of the auricles and ventricles are intermediate in size and content of glycogen. The power of conduction is intermediate. The musculature of the various parts is so differentiated that its manner of working may be inferred from its appearance and staining. The structure and chemical constitution of the tissue control the rate at which the wave of contraction flows through it.

PATENT RIGHTS AND ETHICS.

According to the British standard of medical ethics, no member of a profession may withhold from his colleagues knowledge which may lead, directly or indirectly, to the alleviation of suffering. It is thus unethical for a medical practitioner to employ a secret remedy in his practice, or to protect by patent, for his own or anyone else's benefit, any preparation of presumed therapeutic value. We learn from the issue of *Nature*, of June 14, 1917, that Professor T. Brailsford Robertson, of the University of California, has given to the regents of the University his patents for a substance, called "tethelin," which he has isolated from the anterior lobe of the pituitary body. He claims for tethelin a growth-controlling action, and recommends it to accelerate repair in the case of slowly healing wounds. The conditions of the gift are that the proceeds which may accrue from the sale or lease of these patents, are to constitute a fund for the furtherance of medical research. It is in our opinion highly undesirable that patents for a therapeutic remedy should be taken out. The fact that the profits are to be utilized for a very valuable purpose does not alter the ethical aspects of the case. We have no evidence yet whether the substance, tethelin, is endowed with the physiological properties which Professor Robertson attributes to it.

Naval and Military.

It is with great regret that we learn that Lieutenant-Colonel C. R. A. Pye, D.S.O., has been killed in action. He was serving in the Infantry.

The 341st casualty list, issued on October 12, 1917, contains the names of 901 officers and men, including 76 officers and one nurse. Sixteen officers and 190 men have been killed or have died, while 49 officers and 374 men have been wounded. It will be noted that, while the total number of dead from all causes recorded in the list issued on October 4 was approximately twice that of the number of wounded, the proportions are practically reversed in the present list. The number of those ill in hospital was 209. The list does not include the names of any medical officers.

In the *Commonwealth of Australia Gazette* of October 11, 1917, the following abstract from the *London Gazette* of May 25, 1917, is published, *inter alia*:—

His Majesty the King has been graciously pleased to confer the Military Cross on the undermentioned officers and warrant officers in recognition of their gallantry and devotion to duty in the field:—

Captain George Charles Willcocks, A.M.C. For conspicuous gallantry and devotion to duty. He worked continuously for about 16 hours in the open, under heavy fire, and successfully evacuated a large number of wounded men. He set a splendid example of courage and determination.

Abstracts are also given from the *London Gazette* of July 6, 1917, in connexion with the officers, non-commissioned officers and men, whose names General Sir Archibald Murray, Commander-in-Chief of the Egyptian Expeditionary Force, desired to bring to the notice of the Secretary of State for War for gallant or distinguished conduct in the field, or for other valuable services. The list includes the names of Lieutenant-Colonel W. A. Fraser, Lieutenant-Colonel R. Macdonald and Captain W. Evans, all members of the Army Medical Corps.

University Intelligence.

THE UNIVERSITY OF SYDNEY.

A meeting of the Senate of the University of Sydney was held on October 8, 1917, at University Chambers, Phillip Street, Sydney.

A report was received from the Finance Committee, with whom was associated Professor Peden, recommending the appointment of Mr. C. Ambrose Russell, B.A., as the University Solicitor in succession to Mr. Robert Smith, M.A., deceased. The report was adopted.

The following degrees were confirmed *in absentia*:—

M.D.: Henry Richard Hodgkinson.

Ch.M.: Elma Linton Sandford.

The following degrees were conferred *in person*:—

Ch.M.: Raymond Arthur Dart, Reginald Francis Maters, Roy Allen Sillar; and

B.Sc.: Norman Townsend.

The annual report of the Sydney University Union was received, and Professor Peden and Mr. W. A. Selle, B.A., were appointed to represent the Senate on the Board of Directors.

The following report from the Rhodes Trust, London, in regard to the election of Rhodes scholars was received:—

In view of war conditions, Rhodes Trustees have decided to postpone all elections this year, but candidates eligible this year will be eligible next year.

On the recommendation of the Faculty of Medicine, and in order that the present fourth year medical students may be afforded the opportunity of enlisting for war service, if necessary, after graduation, it was resolved that the curriculum for the present fourth year students be slightly compressed; and that they be permitted to present themselves for the final degree examination in December, 1919, instead of in March, 1920.

CONTRACT PRACTICE IN VICTORIA.

Points in Organization.

II.

The Income Limit.

The income limit clause in the Common Form of Agreement provides that no lodge member who earns £208 a year or more, shall be entitled to medical benefit. If a man joins a lodge when his income is less than £208 a year, he is entitled to medical benefit until his earnings reach £312 a year. It has been suggested by a few members of the Victorian Branch that, since the cost of living has increased by about 50% since the beginning of the war, this standard is too high. The clause is identical with the clause of the Common Form of Agreement in force in New South Wales. Experience has shown that it works well in New South Wales, where living is certainly not less expensive than in Victoria. No hardships have arisen from the enforcement of this clause.

The Commonwealth Statistician has recently stated that 91% of the income-earners of Australia receive less than £200 per annum. Mr. N. Mauger, President of the Friendly Societies' Association, stated at the conference which was held by members of the Victorian Branch and of the Friendly Societies' Association, that only 2% of the lodge members of Victoria would be affected by the application of the income limit clause. It must be pointed out again that the clause does not affect any person who is now a member of a Friendly Society, no matter what his income may be.

The Victorian Branch Council has introduced a saving sub-clause, in order to prevent the income limit clause from acting harshly in exceptional circumstances. According to this sub-clause, a member of a lodge may still receive medical benefit, notwithstanding the fact that his earnings exceed £312 per annum, if it can be shown that he is in poor circumstances. Similarly, the income limit may be disregarded in the case of a new lodge member, in the event that the number of his dependants and the extent of his responsibilities render him a relatively poor man. These facts demonstrate that the application of the income limit clause will not prove a hardship to anyone in the State of Victoria.

From time to time there appears in the lay press a charge that medical practitioners extort relatively large fees from persons with moderate incomes. No one knows better than a medical man that a long illness is frequently a calamity to the patient. It is the usual practice of doctors to modify their fees in the course of a long attendance, when dealing with persons of limited means. In the case of lodge patients, the liability is limited to the sum of 20s. a year. The longest illness will not cost the member any more for medical attendance. The average wage-earner certainly pays more each year to his barber and to his tobacconist, and undoubtedly finds more money for visits to the picture theatre.

Some members of the profession fear that nationalization may become a real issue at an early date. Various suggestions have already been made, and the British Medical Association has considered the fundamental principles on which any system of medical practice must be based. If the profession were nationalized, or if some form of national insurance were introduced, the basis for the contract between the Government and the medical profession would be the conditions obtaining at the time. In New South Wales the income limit for lodge practice is fixed at £208 a year. If it were fixed at a higher level in Victoria, that level would be adopted for the purposes of legislation. The effect of this on the practitioners of New South Wales would be serious. The New South Wales Branch has shown the way, and has demonstrated that £208 per annum is a reasonable and practicable income limit for lodge patients. It is the duty of the members in Victoria not to endanger this principle by the acceptance of less favourable terms.

At the delegates' meeting held in Victoria some five months ago, a full discussion took place on the rate of remuneration and on the income limit clause. It was then decided by a large majority that the *per capita* rate of 20s. and the income limit of £208 must be insisted on. The Council of the Branch received a mandate from its members to take the steps necessary to secure these terms. It is of the utmost importance that the conditions of lodge practice throughout Australia shall be uniform.

Public Health.

VICTORIA.

The following notifications have been received by the Department of Public Health, Victoria, during the week ending October 7, 1917:—

	Metro- politan. Ca. Dths.	Rest of State. Ca. Dths.	Total. Ca. Dths.
Diphtheria	40 1 .. 19 0 ..	59 1	
Scarlatina	26 0 .. 11 0 ..	37 0	
Enteric Fever	1 0 .. 1 0 ..	2 0	
Pulmonary Tuberculosis	26 9 .. 18 3 ..	44 12	

NEW SOUTH WALES.

The following notifications have been received by the Department of Public Health, New South Wales, during the week ending October 6, 1917:—

	Metro- politan. District. Ca. Dths.	Hunter River District. Ca. Dths.	Rest of State. Ca. Dths.	Total. Ca. Dths.
Enteric Fever	7 0 .. 1 0 ..	5 0 ..	13 0	
Scarlatina	14 0 .. 1 0 ..	6 0 ..	21 0	
Diphtheria	35 0 .. 3 0 ..	38 0 ..	76 0	
C'bro-spinal Men- ingitis	1 0 .. 0 0 ..	2 1 ..	3 1	
*Pulmonary Tuber- culosis	18 11 .. 1 0 ..	0 0 ..	19 11	

* Notifiable only in the Metropolitan and Hunter River Districts, and, since October 2, 1916, in the Blue Mountain Shire and Katoomba Municipality.

Three cases of variola have been reported at Warren.

QUEENSLAND.

The following notifications have been received by the Department of Public Health, Queensland, during the week ending October 6, 1917:—

Disease.	No. of Cases.
Pulmonary Tuberculosis	13
Diphtheria	36
Cerebro-Spinal Meningitis	1
Erysipelas	2
Scarlatina	4
Ankylostomiasis	3

SOUTH AUSTRALIA.

The following notifications have been received by the Central Board of Health, Adelaide, for the week ending September 29, 1917:—

	Adelaide. Ca. Dths.	Rest of State. Ca. Dths.	Totals. Ca. Dths.
Diphtheria	5 0 .. 14 3 ..	19 3	
Pulmonary Tuberculosis	0 5 .. 5 5 ..	5 10	
Scarlatina	1 0 .. 3 0 ..	4 0	
Erysipelas	0 0 .. 4 0 ..	4 0	
Pertussis	1 0 .. 2 2 ..	3 2	
Favus	0 0 .. 2 0 ..	2 0	
Enteric Fever	0 0 .. 1 0 ..	1 0	
C'bro-Spinal Meningitis	0 0 .. 0 1 ..	0 1	

WESTERN AUSTRALIA.

The following notifications have been received by the Department of Public Health, Western Australia, during the fortnight ending September 22, 1917:—

	Metro- politan. Cases.	Rest of State. Cases.	Totals. Cases.
Enteric Fever	0 .. 1 ..	1	
Diphtheria	12 .. 10 ..	22	
Scarlatina	2 .. 4 ..	6	
Pulmonary Tuberculosis	27 .. 8 ..	35	
Erysipelas	3 .. 2 ..	5	
Septicæmia	3 .. 0 ..	3	
Anthrax	0 .. 1 ..	1	
Bilharzia	1 .. 0 ..	1	

NEW ZEALAND.

The following notifications have been received by the Chief Health Officer, Department of Public Health, Hospitals and Charitable Aid, New Zealand, for the four weeks ending September 10, 1917:—

Disease.	No. of Cases.
Scarlatina	204
Diphtheria	482
Enteric Fever	34
Pulmonary Tuberculosis	95
Cerebro-spinal Meningitis	1
Poliomyelitis	3
Puerperal Fever	4
Ophthalmia Neonatorum	2
Trachoma	1
Erysipelas	12
Hydatids	3
Septicæmia	1
Tetanus	1

Abstracts from Current Medical Literature.

SURGERY.

(139) Transverse Colostomy.

P. Lockhart Mummery (*Practitioner*, August, 1917) states that colostomy of the transverse colon is not a new operation, for it was described in Allingham's "Diseases of the Rectum" in 1901. Until recently, however, it was only performed when sigmoid colostomy was not possible, and it was never deliberately chosen in preference to sigmoid colostomy, when either method was available. Within the last two or three years, the author has performed transverse colostomy for choice. It used to be considered that there was a great advantage in opening the colon as low down as possible, in order to allow the fecal contents to become formed before evacuation, and that the best results as regards control over evacuation of the stools, were obtained by adhering to this principle. The writer's belief, however, is that the factor which mainly determines the question of control is not so much the consistency of the stools, as the presence of a reservoir for the fecal contents just above the opening. The chief aim of the surgeon in regard to colostomy was first to render the operation as safe as possible, and, after this was attained, to secure for the patient the maximum degree of control over the stools, and to prevent prolapse of the mucous membrane through the opening. All methods of attempting to obtain artificial control have been tried by the author, who has no hesitation in saying that they are not successful. The best results as regards control have hitherto been obtained by bringing the bowel out through as small an opening as possible in the left rectus muscle, and subsequently trimming off the mucous membrane to the skin level. Another important factor in obtaining control over a colostomy opening is the presence of a reservoir for the fecal contents, just above the opening. With transverse colostomy performed as suggested in the paper, an excellent reservoir is provided in the central part of the transverse colon, which is one of the great advantages of this operation. Prolapse of the mucous membrane through the colostomy opening, which is often very troublesome in a low sigmoid colostomy, apparently does not occur with any frequency in transverse colostomy. This is mainly due to the higher situation of the opening. It is a well-known fact that hernia of any kind is rare above the umbilical level, and the mechanism of prolapse is the same as that of hernia. Transverse colostomy offers obvious advantages when the disease is in the sigmoid flexure, and should always be preferred to caecostomy. In old, debilitated persons, suf-

fering from intestinal obstruction, which requires immediate relief, transverse colostomy has the advantage that, if performed in the way described, the dangers of peritonitis is greatly diminished, from the fact that the omentum completely surrounds the bowel, where it passes through the abdominal wall, thus shutting off the peritoneal cavity. A contra-indication to transverse colostomy is a very short gastro-colic omentum and a small stomach. If a transverse colostomy is performed under these conditions, it may seriously interfere with the movements of the stomach. The incision used by the author enables either the transverse colon or the pelvic colon to be brought up, according to whichever seems to be the more suitable. The technique of the operation is fully described. In the after-treatment, the bowel usually has to be opened much earlier than with sigmoid colostomy, for symptoms of obstruction tend to come on quickly. It is generally advisable to open the bowel within 36 hours. This is of little consequence, as the omental shield protects the abdominal cavity completely from infection, even if the wound should become septic. The wearing of proper colostomy belts, and the regulation of the bowels, are discussed, and the conclusions of the author as to the advantages of this operation over other forms of colostomy are given.

(140) The Repair of Cranial Defects.

H. L. Warren Woodroffe deals with the repair of cranial defects by means of cartilagenous grafts (*British Journ. Surgery*, July, 1917). He states that, before the war, it was comparatively infrequent to find cases in which large gaps had to be left in the skull, except where decompression was performed for increased intracranial tension, when it was obviously to the patient's advantage that the opening should remain patent. Cases of fractured skull, often accompanied at first by septic infection of the brain and meninges, had become common. Free removal of the bone was an imperative necessity, both for purposes of drainage and for the relief of the temporarily increased cerebral tension. There were many cases of trephining in which no reparative operation was advisable. A small trephine hole, made for fissured fracture, and revealing an intact *dura mater*, had long been known to cause no trouble. Cases of this kind did not occur often in military surgery. When the breach was large, the question of repair was always to be considered. The position of the gap also made a difference in the symptoms caused. When it was opposite the attachment of the *tala cerebri* or *tentorium cerebelli* there were rarely any symptoms of importance. Wounds of the squamous and temporal bones were protected by the temporal muscle and fascia, unless these structures were too extensively damaged. When the frontal, the parietal, or occipital bone was affected, symptoms of unstable intracranial equilibrium were nearly al-

ways present. The two most important signs pointing to a seriously weakened state of the cerebral defences, were visible pulsation and impulse on coughing. The symptoms were headache, vertigo, and sudden blurring of the vision. These signs and symptoms pointed to cranial defect when they were brought on by sudden movement. The symptoms could often be cured by cranioplasty. In frontal wounds, the cosmetic result must be considered. A depressed, discoloured scar was very unsightly, and it should be removed. There were general and local contra-indications to operation. No surgeon would operate on a diabetic or consumptive patient, or on a man with advanced heart or Bright's disease. These conditions were rare in military patients. Bronchitis was a contra-indication, where any cough caused a cerebral impulse. Frequent coughing tended to displace any material used to fill a gap in the skull. Coughing may be very painful during the first few days after operation. No operation should be undertaken as long as there are any signs of sepsis. The different types of operations that have been tried are mentioned, but cranioplasty by means of cartilagenous grafts is, in the writer's opinion, the best and most universally applicable. It was safe and simple, and the grafts were autoplasmic. The operation consisted briefly in filling in the gap with grafts taken from the lower costal cartilage. The majority of patients left hospital in four or five weeks with a solid skull. There was no need to wait, as in the case of bone grafts, for several months after the wound had healed, before proceeding to operation; the cartilage appeared to possess a power unknown to bone grafts, of resisting infection. In frontal cases it gave an opportunity for moulding, and readily allowed of cosmetic results, only obtained with difficulty by other methods. The operation is described in detail. The after-treatment, the results and notes on seven cases operated on in the Ulster Volunteer Hospital are also given.

GYNÆCOLOGY AND OBSTETRICS.

(141) Breast Feeding.

J. P. Segdwick (*Journ. Americ. Med. Assoc.*, August 11, 1917) publishes a short paper on breast feeding. He is of opinion that the persistent demand on the breast is the most important and continually neglected factor in the establishment, maintenance and reinstitution of natural or breast feeding. Normally, the flow of breast milk in the puerperium is supposed to be brought about by the hormones set free just before the milk "comes in." These must be supported by the sucking stimulus of the baby. Thus, in the case of a premature baby, incapable of sucking, it is necessary to have the breasts of the mother regularly expressed five or six times daily. The expression is carried out as follows: The breast is grasped about 1 or

cm. from coloured areola, and a milking motion is carried out towards the nipple. No massage of the breast proper is allowed, for a consideration of the anatomy of the breast teaches that the ducts which contain the milk extend but a short distance from the areola. Those who milk cows, know that the teats are milked, and not the cow's bag. If the method is intelligently carried out, it is possible to keep the mother of the premature infant from losing her milk. He says that he has never seen a case of agalactia, and seriously doubts its existence. If the baby does not gain well at the breast, the trouble is practically always with the baby itself, or with the quantity, not the quality, of the milk. He cites a case in which the trouble was supposed to be with the quality of the milk, in which he proved that the baby nursed unsatisfactorily. The breast gland was not being stimulated, and the baby received only about a teaspoonful at each feed. Instructions were given to put the baby to the breast regularly; the breasts were then carefully expressed manually, and the expressed milk was given to the baby. Instructions were given to make up the caloric requirement with a simple milk mixture. The milk secretion increased rapidly, the baby began to suck better and gain in weight, and, after a short period, complementary feeding was stopped. He advises the practice of complementary and not supplemental feeding, that is, that the required amount of extra feeding should be given immediately after nursing, and not in place of a nursing. He condemns the practice of dropping a nursing and replacing it with an artificial feeding, as one of the frequent causes of the breast drying up and the loss of milk. He also cites a case in which breast feeding was established at a much later date by the same method. The baby, one month old, had never been nursed. It was put regularly to the breast; after each feed the milk was carefully expressed from the breast and given to the baby. The baby's caloric requirements were reached by the addition of a simple milk mixture. After one month the child had learned to suck efficiently, and the mother's milk sufficed, without any supplemental or complementary feeding. In the maintenance of lactation, the same attention should be given to keep up the demand, as in the establishment of lactation. The breasts should be evacuated at least five times in twenty-four hours. He quotes Zlocisti as reporting the re-establishment of lactation in several cases after the lapse of weeks, and even after 90 days. He considers that enough is known to save the breast milk for most of the babies that are now deprived of it, and that it has now become a question of getting the information to the profession, the nurses, and the public.

(142) Wet Nurse Management.

ISAAC A. ABT (*Journ. Americ. Med. Assoc.*, August 11, 1917) writes concerning the technique of wet nurse management in institutions. He asserts

that for the large number of babies brought to hospitals suffering from gastro-intestinal diseases caused by food disturbances, nothing can compare in value to properly suited doses of breast milk, which must be obtained from wet nurses. He advises the selection of women whose ages range from 20 to 30 years. At the time of admission to the hospital the baby of the wet nurse should be at least three or four weeks old. The mother must have a thorough physical examination to exclude tuberculosis, syphilis, gonorrhoea, and diseases of the skin, glands and bones. It is necessary to ascertain that the breast milk is sufficient in quantity and proper in quality. The quantity of milk can be judged by weighing her baby before and after an ordinary nursing. The quality of the milk can be estimated by examining the baby of the wet nurse. If the baby is in good nutrition, has gained in weight, and has normal bowel movements, it may naturally be assumed that the milk is of good quality. He places little reliance on the chemical examination of breast milk as an indication of its quality. It is mostly insisted that she nurses her own baby, as this supplies the natural stimulation to her breasts. It has been found that the more completely the milk is withdrawn, the greater becomes the supply. As the foster baby cannot, as a rule, be put to the breast on account of debility and marasmus, the milk is procured for it indirectly. Breast pumps are not used, because they have been found inefficient. The mother is taught to milk her own breasts. This is done every four hours during the day and night. All the wet nurses milk at the same time, under the supervision of a head nurse and assistants. Sterile medicine glasses, sterile bottles and materials for cleansing the breasts are provided. The whole breast is not compressed, but only that part which corresponds to the areola, and, as it is compressed, the breast is at the same time drawn downwards and forwards. The wet nurse soon becomes expert in the emptying of her breasts. In most instances the breast milk is used immediately after pumping; when an excess is obtained, it is transferred to sterile bottles and placed in the refrigerator. The breast milk is reserved for those babies who are desperately ill and required to be tided over critical periods, for those suffering from marasmus due to food disturbances or infection, for premature babies, and for all those who have been operated on for pyloric stenosis. The food for the wet nurse during lactation should be sufficient, but not excessive. He holds the view that certain foods ingested by the mother derange the quality of the milk, is probably fallacious. In addition to good food, the wet nurse should take a glass of milk every four hours of the day and night, and be encouraged to drink an abundance of water. Particular attention is paid to the hygiene of the apartments occupied by the wet nurses and their babies; their wearing apparel and recreation are also well cared for. It

was formerly considered that the appearance of menstruation was a signal to wean the baby, but his experience in this regard accords with that which is commonly stated, namely, that menstruation has little effect on lactation, and none on the permanent quality of the milk. The duration of lactation may continue for a long time, particularly if the stimulation of the breasts is maintained. As a rule, the milk tends to deteriorate towards the end of the first year, so that wet nurses usually are not retained after they have been used for nine to ten months. He gives tables indicating the daily quantity of milk expressed by wet nurses. Some produced as much as 1,500 c.cm. in 24 hours, in addition to that which they gave their own babies. The daily average, excluding that which they gave their own babies, was about 1,000 c.cm.

(143) Rupture of the Uterus.

GORDON LEY (*Proc. Royal Soc. of Med.*, June, 1917) records an unusual case of spontaneous rupture of the uterus. A multipara, age 46, with a record of 11 previous pregnancies, was admitted to the City of London Lying-in Hospital for a pregnancy which had been normal to the thirty-fifth week, when she began to suffer from hæmorrhages. The presentation was right occipito-anterior, and after a labour lasting for 1½ hours the baby was born alive. The third stage was completed in 20 minutes without excessive loss. Ten minutes later the patient complained of sudden dyspnoea, the pulse became feeble and rapid, and she died in 15 minutes. A tentative diagnosis of pulmonary embolism was made. A post-mortem examination revealed the following: the peritoneal cavity was intact; there was extensive retro-peritoneal hæmorrhage into the substance of the left broad ligament, extending upwards to the lower pole of kidney and stripping up pelvic and descending colon. The hæmorrhage originated from a rent in the left wall of the lower uterine segment. The uterus was opened longitudinally along its right border, and the placental site was seen on the posterior wall of the lower segment, the lower margin reaching within 2.2 cm. of the internal os. In the left border of the uterus, commencing in the cervical canal and terminating in the body, was a tear 13 cm. long, which passed through the left margin of the placental site. A microscopical section showed an apparently normal puerperal uterus, lined by decidua. The case was considered worthy of note, (1) because of the rarity of spontaneous rupture in a previously normal uterus, and (2) because of the association of rupture and *placenta prævia*. All other cases of spontaneous rupture seen by the author had occurred through a Cæsarean section scar. The author is of opinion that the actual causative factor of rupture in this case cannot be definitely proved, but that other factors present—age, parity, and anæmia from previous loss—may have played some part as causative factors.

British Medical Association News.

MEDICO-POLITICAL.

ANNUAL MEETING OF THE DELEGATES OF THE AFFILIATED LOCAL ASSOCIATIONS OF MEM- BERS WITH THE COUNCIL OF THE NEW SOUTH WALES BRANCH.

The annual meeting of the delegates of the affiliated Local Associations of members with the Council of the New South Wales Branch was held at the B.M.A. Building, 30-34 Elizabeth Street, Sydney, on October 5, 1917, Dr. R. Gordon Craig (the President) in the chair. Eleven of the seventeen Local Associations were represented. In two instances (the Eastern District Medical Association and the Border Medical Association), no appointment had been made. Apologies from three delegates for non-attendance were read.

Friendly Society Practice.

Dr. A. Maitland Gledden (City Medical Association) moved:—

That it be a recommendation that, in Clause 17 of the Common Form of Agreement between Medical Officer and Friendly Society Lodge in use for Lodges which meet in the city of Sydney, the words

In any case in which the medical officer shall visit a member as hereinbefore set out at a place beyond the following boundary,

be altered to read

In no case shall the medical officer be required to visit a member as hereinbefore set out at a place beyond the following boundary;

and that all the words after "to the point of commencement" be omitted.

The motion was seconded *pro forma* by Dr. R. H. Todd, the Honorary Secretary.

The motion was negatived after a short discussion.

Dr. E. Cuthbert Hall (Central Western Medical Association) moved:—

That the following clause be added to the Common Form of Agreement between Medical Officer and Friendly Society Lodge, namely:—

Notwithstanding anything contained in Clause 5, no lists shall be delivered to the medical officer by the Secretary in the manner required by such clause until after such list has been submitted to the medical officer for approval, and his approval of the same shall have been obtained in writing.

Dr. A. Maitland Gledden seconded the motion.

The motion was lost.

Dr. E. Cuthbert Hall moved:—

That the income-limit be made retrospective as from 1st January, 1918.

The motion was seconded *pro forma* by Dr. D. Thomas, but failed to obtain any support from any member present, and was negatived.

Dr. E. Cuthbert Hall moved and Dr. T. J. Henry seconded:—

That the lodge not only assist in collecting, but also be responsible for the payment of all fees required to be paid under the Common Form of Agreement. The motion was put to the meeting, and was lost by five votes to twelve.

Dr. E. Cuthbert Hall moved:—

That the *per capita* fee for attendance on members of Friendly Society Lodges be increased by 10s. per member per annum.

After a discussion, it was determined that the matter should be again discussed at the next annual meeting of delegates, and that, in the meanwhile, the Council should ascertain the wishes of the local medical associations.

Dr. E. A. R. Bligh (Northern Suburbs Association) moved:

That concerted action be taken in regard to fixing uniform evening consulting hours.

A discussion ensued and Dr. Bligh eventually withdrew his motion.

Dr. E. A. R. Bligh moved:—

That no member be permitted to accept appointment as medical officer of a lodge which has, as a medical officer, a practitioner ineligible for membership.

Dr. G. H. Walton Smith (Eastern Suburbs Medical Association) seconded the motion.

The matter was fully discussed, and the views of each delegate were given.

With the consent of the meeting and of the seconder, Dr. Bligh withdrew the motion.

War Emergency Organization.

Dr. T. J. Henry (North-Eastern Medical Association) moved:—

That it be a recommendation to the proper military authority that, in the event of another call up of men for home defence under the Defence Act, the medical officers to whom the duty of examining is allotted in country districts, be transferred for that duty to districts other than those in which they reside and practise.

He referred to the experience he had made at the time of the proclamation calling upon all male citizens between 18 and 35 years of age to enrol. He had had to examine many of his own patients and friends, and some who were patients of his colleagues. The relatives, and often the persons under examination, had endeavoured to present evidence of common or of obscure affections. The result of refusing to be influenced by these biased opinions, and of carrying out his duty in accordance with the physical conditions of persons examined, had led in many cases to the loss of private patients, and to the estrangement of friends. He held that it would be highly desirable in the event of a renewed proclamation, if country practitioners were sent a considerable distance from the place of their practice, so that the effect of passing persons as fit for military duty might not be felt in their practices.

Dr. W. J. White (Illawarra Suburbs Medical Association) seconded the motion.

Dr. F. P. Sandes supported the motion.

Dr. D. Thomas referred to the methods which had been adopted in his own experience. When a medical officer was confronted with a recruit who was his own patient, he transferred him to one of his colleagues.

Dr. E. A. R. Bligh bid the members to hasten slowly. While he sympathized with Dr. Henry, he was convinced that a rule of the kind suggested would lead to considerable inconvenience. He thought that, under the circumstances, the disadvantages to which Dr. Henry had referred, would disappear if larger medical boards were appointed, and if no recruit were examined by his own medical attendant. Recruits and their relatives would then not be able to fasten the blame on any one medical man.

Dr. T. W. Lipscomb held that the matter was very different in the city and suburbs, as compared with the country. He had undertaken the work of examining recruits, and was not expected to work more than six hours a day. This enabled him to attend to his private practice in the mornings and evenings. Had he been transferred 50 or 60 miles, it would have been impossible to have done any private work.

Dr. George Armstrong held that if the Defence authorities took the matter up, it might be necessary to deal with it.

Dr. W. C. McClelland agreed that the difficulty scarcely arose in the city and suburbs. He himself had not lost any patients. He suggested that the best solution would be for the examinations to be conducted at a short distance from the doctor's house. He had no doubt that it would be possible to arrange with the military authority for this to be done.

Dr. E. Cuthbert Hall considered that the trouble arose when single medical men were examining recruits, and not when the recruits were referred to a medical board. He held that the difficulty would be overcome if the Defence Department agreed to appoint boards of three or five medical officers to act together.

Dr. Henry, in closing the debate, stated that he had had no time at all for private practice. His orders at first were that he was to devote the whole day to the work, but that he was not to examine more than 50 recruits a day. The object was to get a thorough examination in each case. Later it was found that the work was not proceeding expeditiously enough, and the rule was therefore varied. In addition to having suffered by the loss of patients, he had experienced disagreement with other local practitioners.

The motion was put to the meeting, and was negatived.

Dr. T. J. Henry moved:—

That an insurance scheme be instituted to provide for the widows and dependants of members who may lose their lives on active service, and to raise funds to subsidize the dependants of those who have already died on active service.

The North-Eastern Medical Association had considered the question of the support of the wives of incapacitated members and of the widows of deceased members. Various schemes had been put forward. The suggestion that appealed most strongly to the members of his Association was that of calling upon medical practitioners in the Commonwealth to contribute a definite percentage of their earnings for the purpose of insuring the lives of all members going on active service. They had felt, however, that there were grave difficulties in the way. In view of these difficulties, and because the matter was not of local concern, but had general application, they had determined to bring the matter up for discussion, with a view to its reference to the Council. It would be necessary to obtain the opinions of actuaries and others who had studied the questions involved. They had no definite scheme to put forward. In the past, private arrangements had been made, and the premiums had been paid by the men who were unable to go to the front. He hoped that something might be done for New South Wales, or even for the whole Commonwealth. Whatever was done, should be of a retrospective character, so that the dependants of their deceased colleagues might benefit.

In seconding the motion, Dr. E. A. R. Bligh sought the permission of the meeting to bring forward a motion which stood in his name to the following effect:—

That "the Federal Naval and Military Relief Fund" be considered.

A scheme had been drawn up for the institution of a Federal Relief Fund. The basis of this scheme was the contribution by every member not on active service of a sum not less than two guineas a year for each year since August, 1914, up to one year after peace shall have been declared. He read the details of the scheme, as it had been adopted by the Northern Suburbs Medical Association. It had been sent to the Council, and, although it had secured a sympathetic consideration, it had not been adopted, because the majority of members regarded it as impracticable. Dr. J. C. Verco, of Adelaide, had expressed the view that something could be done. They had had experience in the northern suburbs which bid them make better provision for the future. He admitted that it would, perhaps, be wiser to base the scheme on the principle of insurance. There were approximately 3,000 medical practitioners in the Commonwealth in normal times. Of these, perhaps 1,000 were away on military service. Many of those who had been away, had returned, and, consequently, the number of those who would contribute toward a fund would be considerably over 2,000. Dr. Bligh read the scheme, in order that the members might be in a better position to grasp the views of his Association (see *The Medical Journal of Australia*, May 26, 1917, p. 452).

Dr. T. W. Lipscomb seconded Dr. Bligh's motion, but, at the same time, emphasized that the scheme was impracticable. Allowing that there were 2,000 practitioners in the Commonwealth, and that each one would contribute two guineas a year, this would mean that in the course of five years £21,000 would be available. It was proposed to take out policies for one thousand men. The sum mentioned would yield £21 to keep each man's policy going for the remainder of the war. He stated that the insurance companies were charging an additional 5% for war risk. He assumed that a policy of less than £1,000 would be of small avail. The additional premium, over and above the ordinary premium, would amount to £50 per annum. He therefore failed to see how the plan could be worked on this basis at all. Medical men were, as a rule, in the habit of insuring their lives, and it would, therefore, be necessary, before any definite scheme were propounded, to enquire into the actual requirements of those on active service. It was, he urged, an unfortunate experience that the response to appeals for voluntary contributions was poor.

Dr. R. Gordon Craig referred to the resolution which the Council had passed in connexion with the Northern Suburbs Medical Association scheme. They had come to the

conclusion that, while something should be done, this scheme was impracticable. The question of devising a scheme for the insurance of medical men on active service had been referred to the Organization and Science Committee. He pointed out that they all felt the justice of the contentions underlying the two motions, and asked the movers to rest assured that in spirit they had secured the acquiescence of those present.

Dr. R. H. Todd thought that the discussion of this important matter would be of considerable assistance to the Council. He felt that Dr. Bligh's proposals were too cumbersome. A Federal Committee would be difficult to manage. It would be far better to limit the scheme to their own State, and to leave the other Branches to take whatever action they deemed advisable. He had discussed the matter with the officials of some of the leading insurance societies, and hoped to be in a position at a later date to place before the Council some suggestions emanating from these gentlemen. He was in doubt whether the proposal to call upon medical men to pay into a fund for the purpose of insuring those going on active service was a hopeful one. Some time before he had been interested in the introduction of a special insurance for medical men. The scheme appeared to be most enticing and to be exactly suited to the requirements of medical men. It had turned out a complete failure. Very few policies had been taken out. He was inclined to the opinion that medical men did not want to be treated as a separate class. He hoped that Dr. Armstrong would give the meeting some information concerning the financial aspect of the question.

Dr. W. C. McClelland held that the matter could be best dealt with by the various local medical associations. He was convinced that, in the majority of instances, the men remaining behind would be prepared to contribute a sufficient sum annually to keep an insurance effective. He did not think that unmarried young men would require their assistance. There were many details to be taken into consideration, and he was of the opinion that many practitioners would object to all their private affairs being handled by a central committee. The least cumbersome and most effective manner of dealing with the question would be to arrange to have it done locally. The South Sydney Medical Association had considered the matter, but had not arrived at a satisfactory solution.

Dr. George Armstrong thought that it would be better to wait and see what the Federal Parliament was going to do in regard to repatriation. Had the medical profession conscripted itself when the plebiscite was taken, it would have been its duty to have done something for some of the men going on active service. As it was, he thought that they should not embark on any impracticable scheme.

Dr. Bligh maintained that it was erroneous to suppose that one thousand men would need to be insured by their colleagues. He was only thinking of the men who were on direct active service. He held that the scheme was not so terrifying nor so frightening as some of the speakers appeared to think. In the Northern Suburbs scheme the sum of two guineas was suggested as a minimum. It could easily be made five or ten guineas. Moreover, only a few of the men on active service would need this assistance. The Federal Parliamentary scheme for repatriation was not adequate for the requirements of medical men or their dependants. The matter should be taken in hand at once.

Dr. W. H. Crago sounded a note of warning against building hopes on a large response to an appeal for voluntary assistance. He had had considerable experience of the calls on the members of the Branch for various purposes, and held the view that any scheme which was based on voluntary contributions was an insecure one. He had been interested to hear Dr. McClelland's opinion. He, too, was opposed to a Federal scheme. Something might be done in the State, but, after all, the most promising proposal put forward was that the local associations should undertake the task of making some provision for the men, either by means of insurances or by a fund.

Dr. W. G. McClelland moved as an amendment:—

That it be a recommendation to the Council to proceed with the consideration of a scheme for the insurance of members on active service.

The amendment was seconded by Dr. Litchfield, and was carried. It was then confirmed as a substantive motion.

Registration of Nurses.

Dr. T. J. Henry moved:—

(a) That, in the opinion of this meeting, it is advisable to have State registration of general nurses.

(b) That, in the opinion of this meeting, it is advisable to have State registration of obstetric nurses.

Dr. Henry wished to bring this matter up under the present condition, although it might be inadvisable to proceed with the matter during the war. It was necessary to protect the public from being exploited by untrained and ignorant women.

The motion was seconded by Dr. McClelland, and carried. Dr. Henry then moved:—

(c) That, in the opinion of this meeting, all trained nurses should be qualified both as medical and surgical and as obstetric nurses.

He recognized that the third part of his motion was more contentious than the first two. It might also not be applicable at present. Nevertheless, he felt strongly on the subject. He pointed out that a young woman was required to spend four years in training before she was allowed undertake the duties of a trained surgical or medical nurse. On the other hand, a girl from the back-blocks could come down, and, after receiving twelve months' training, could go forth as a competent obstetric nurse. She could wear the same uniform, and be called by the same title as her sister, who had received four years' technical education. Moreover, the obstetric nurse in the country found that there was not sufficient obstetric work to keep her going the whole time, and, consequently, she undertook general nursing work, and claimed to be just as competent as the fully trained nurse. Many of these girls were members of local families, and if a medical practitioner intervened, he would arouse the wrath of the relatives and friends, and do no good. He did not consider it fair to the public, nor to the fully trained nurse, that this should be allowed. A medical practitioner had to undergo the full course of training before he could practice as an obstetrician, and therefore it would be consistent to require an obstetric nurse to pass through a full course of training to equip herself as a competent nurse, before she chose to specialize.

Dr. E. A. R. Bligh seconded the motion. He had long held the view that it was both dangerous and illogical to allow a woman with a few months' training to practice as an obstetric nurse, while a surgical nurse was required to undergo four years' training. He instanced the by no means rare occurrence of an illness supervening during the puerperium. The obstetric nurse might be quite competent to look after the mother during the labour, but she was useless if the mother should get a pneumonia. Surely it was not unreasonable to require every probationer to undergo six months' training in obstetrics. This might be included in the course, and might be so arranged that the obstetric work should come at the end of the general training.

Dr. W. C. McClelland stated that it was a counsel of perfection to require all trained nurses to obtain an obstetric certificate, but he raised a doubt as to whether it was practical. It was certainly undesirable to extend the course, and, consequently, if the proposal were to be realized, the obstetric training would have to be included in the four years. He was inclined to agree with Dr. Bligh that it might be fitted in the last year.

Dr. W. H. Crago urged that twelve months was the shortest time for the special training in obstetrics that was advisable. The term of twelve months obtained in the training schools for obstetric nurses in Sydney.

Dr. R. Gordon Craig said that in America the training for nurses was completed in three years. The certificate which nurses obtained in this term included the permission to act as an obstetric nurse.

Dr. R. H. Todd said that the matter had been considered some years ago by the Australasian Trained Nurses' Association and by the Royal Victorian Trained Nurses' Association. The former had regarded the proposal as impracticable, while the latter had introduced the rule regarding the triple qualification. He did not think that the experiments had worked out successfully. He explained his reasons for supporting Dr. Henry's motion.

Dr. George Armstrong opposed the whole gamut of proposals. He had had 25 years' experience of the training of nurses, and nearly as long an experience of the training of obstetric nurses. He dealt at some length with the subject of the integrity of trained obstetric nurses, and maintained that the standard of behaviour was, as a rule, good. He maintained that obstetric training was useless for a nurse who was not intending to practise as an obstetric nurse. A woman who had received a short training and had gained no subsequent experience was untrustworthy as an obstetric nurse. Half-trained obstetric nurses did not even know when labour had begun; the same might be said of the freshly qualified medical practitioner, who had conducted a dozen cases. It was especially necessary in the country that the obstetric nurse should have received full training in her special branch of nursing.

Dr. T. W. Lipscomb agreed with Dr. Armstrong to a great extent. A well-trained obstetric nurse was invaluable, but a general nurse with a little obstetric training was useless at confinement work. The same applied to eye work in the case of medical practitioners. The majority of medical students did a little eye work, but unless they took up the study as a specialty, they were useless as ophthalmic surgeons, and usually referred their eye cases to the specialist.

Dr. Bligh retorted that, when a medical man wished to specialize, he was compelled to undergo the full course of scientific training in general medicine, surgery and obstetrics. After he had satisfied the examiners that he was safe to be trusted as a medical practitioner, he turned his attention to his special subject, and worked at it. Nurses should not be allowed to specialize until they had proved themselves proficient in ordinary work. Some were especially good in surgical work, and were useless in medical cases. Others took up medical nursing exclusively, and were not good at a surgical operation. The same should apply to obstetric nursing; but the same general training should be required of all.

Dr. George Allan (Western Medical Association) referred to the young widow, who made an excellent obstetric nurse. She was not in a position to afford four years' training. It would be a mistake to formulate a hard-and-fast rule for all cases.

Dr. Sadler (Western Medical Association) suggested that, under the scheme of State registration of nurses, the practice of an obstetric nurse as a general nurse should be regarded as unprofessional conduct, and should be dealt with strictly.

Dr. F. W. Litchfield protested that the obstetric nurse was often quite incapable of looking after a sick person. In the majority of cases she was incompetent to deal with a healthy baby. When either the baby or the mother became ill, the obstetric nurse had not sufficient knowledge to undertake the nursing.

Dr. G. A. Buchanan opposed the motion. An obstetric nurse was usually engaged for a definite time and for a definite period. She made her arrangements in accordance with the periods for which she was engaged by a patient. If she were allowed to undertake general nursing, her engagements would be interfered with, and there would be a grave danger that she might be compelled to go from a scarlet fever or other infectious case to a confinement.

After Dr. Henry had replied, the motion was put to the meeting, and was lost on a show of hands.

Life Insurance Examination.

Dr. G. A. Buchanan moved:—

That the regulations governing fees to be accepted for life insurance examination and report be reviewed.

He referred to the resolution of the Federal Committee and the practice in Victoria, and suggested that it was inadvisable to permit differences in practice. He advocated a uniform fee of one guinea for all examinations and reports. In his opinion no examination should be undertaken without a complete analysis of the urine.

Dr. T. J. Henry seconded the motion, which was carried.

Dr. E. Cuthbert Hall moved:—

That the fee for examining life insurance cases be increased, that is to say, that the fee of 10s. 6d. for examining cases of £100 or less be increased to £1 1s.,

and that the fee of £1 ls. for examining cases upwards be increased to £2 2s.

The opinion of the members of the Central Western Medical Association was that they were doing things too cheaply. He had recently learned from an insurance agent whom he was examining as a proponent for life assurance, that he regarded the fee of one guinea as too low.

Dr. W. J. White seconded the motion.

Dr. T. W. Lipscomb opposed it. The fees in ordinary medical practice averaged 10s. 6d. When a patient presented himself to the general practitioner for treatment, he had a right to expect a thorough examination, and, if necessary, the urine had to be analysed as well. It was true that he was not required to write a full report, but he had to make full notes for reference. Many insurance companies were accepting policies without examination, while others were engaging part-time men to act for them. The Branch objected on principle to salaried contracts, and advocated *per capita* payment.

Dr. White stated that he had found the examination, with report on the long form, much more irksome than three or four examinations with reports on the short form. The fee for the former should be increased, but that for the latter might remain at 10s. 6d.

Dr. A. Maitland Gladden pointed out that, in insurance work, the medical man made no bad debts. Some companies paid a half of a guinea for the report on the short form and one guinea when an analysis of the urine was required. The companies would prefer to accept the additional risk to paying a higher fee.

Dr. R. H. Todd said that, at its last meeting, the Federal Committee had recommended the Branches to adopt a minimum fee of one guinea for examination and report for life insurance. New South Wales Branch was the only Branch that charged less than one guinea. They had felt that there was some objection to the adoption of the recommendation of the Federal Committee, but had recognized at the same time the advisability of uniformity. He referred to the history of the matter. The practice followed was based on a resolution of the Council, which had been passed in 1902 and amended in 1909. The resolution was as follows:—

That the fee for proponents for industrial insurance for policies of £100 and under may be 10s. 6d. each, and for all policies over £100 the minimum to be £1 ls.

In 1911 the matter was again raised, and the conclusions arrived at were published in the *Australasian Medical Gazette* of September 20, 1911 (page 524). It was provided that a fee of 10s. 6d. could be accepted when the amount insured did not exceed £100 and the report was made on the short form. For reports on any other form, irrespective of whether the amount of the policy was above or below £100, the minimum fee payable was £1 ls.

It was, however, arranged that no fee of less than £1 ls. should be accepted in any case in which a secretion or excretion was required to be examined. This practice coincided with that obtaining in England. The British Medical Association in the United Kingdom had dealt with this matter very carefully.

Dr. Todd called attention to the danger of a want of uniformity in the practice of the various Branches in Australia.

Dr. R. Gordon Craig explained that, from the point of view of the insurance societies, the payment of a fee of £1 ls. rendered small insurances non-profitable undertakings.

The motion was put to the meeting, and was negatived.

Dr. G. A. Buchanan moved:—

That, where a proponent has been deferred for subsequent examination and report, a fee of 10s. 6d. is reasonable where the original examination was made by the practitioner asked to accept the same; but that, where the original examination was made by another practitioner, the minimum fee should be £1 ls.

Dr. Buchanan held the opinion that, no matter what form the examiner was required to fill in, he would not be justified in recommending the acceptance of a proposal for life

insurance unless a thorough examination had been carried out, including the analysis of the urine.

The motion was seconded by Dr. T. J. Henry.

Dr. R. H. Todd moved as an amendment the addition of the following words:—

Provided that in no case where any excretion is required to be examined, should a less fee than £1 ls. be accepted.

The amendment was seconded by Dr. Lipscomb, and was carried.

Workmen's Compensation Act.

Dr. G. A. Buchanan moved:—

That the minimum fees to be accepted by employer's medical examiner for examination and report under Schedule 1, Clause 4 or 14, be—

(a) Where the examination is at the doctor's residence or consulting-room, 10s. 6d.;

(b) Where the examination is elsewhere, £1 ls., with mileage, 7s. 6d. per mile beyond two miles.

The motion was seconded by Dr. W. J. White.

A short discussion followed, in the course of which it was emphasized that it was desirable to set up a temporary standard for fees until experience had shown what amount of work was required in connexion with these cases. The fees referred to in the motion, it was pointed out, were minimum fees, and any practitioner who felt so inclined, would be justified in asking for a larger fee. The motion was carried.

Dr. G. A. Buchanan moved:—

That no contract be made with an employer or insurer at a fixed salary.

He explained that no one knew what would happen in regard to the Act, and that, while they were marking time, it was desirable to apply the general principle approved of by the Branch that *per capita* payments were preferable to payments by salary.

In seconding the motion, Dr. T. J. Henry asked for leave to withdraw a proposition standing in his name, which had practically the same significance.

The suggestion met with general approval, and was carried without dissent.

The Health of School Children and Teachers.

Dr. G. A. Buchanan moved:—

(a) That night work for school children under twelve years of age should be discontinued.

(b) That the present school hours for children under twelve years of age, namely, 9.30 a.m. to 12.30 p.m., and 2 p.m. to 4 p.m., are too long.

(c) That the prevalence of neurasthenia in teachers be brought to the notice of the Education Department, with a view to remedial measures being taken.

In dealing with section (a), Dr. Buchanan pointed out that Dr. D. T. Harbison, of Bowral, had made a special study of the subject of the health of school children, and had come to the conclusion that home study impaired the mental and physical development of young children. He associated the development of chorea with the system of cramming, and had found that children who were forced to do prolonged night work, suffered from a variety of nervous affections.

The motion was seconded by Dr. W. J. White.

Dr. F. W. Litchfield agreed with the motion in principle, but thought that it did not go far enough. Many education authorities considered that home work for young children under fourteen years should be discouraged. He therefore moved as an amendment that the section read:—

That home study for school children under 14 years of age should be discontinued.

The amendment was seconded by Dr. R. B. Wade.

Dr. R. Gordon Craig stated that in New Zealand school children were not required to do any night work or home preparation at all.

Dr. J. Park (South-Eastern Medical Association) considered that they should not stop at a prohibition of home study. The children should have healthy recreation after school hours, and should not be allowed to spend their time in picture-shows. Apart from the moral danger associated with these exhibitions, the surroundings were distinctly unhygienic.

In the course of an interesting discussion, it was pointed out that the teachers were usually promoted by results. The inspectors judged the efficiency of the teachers by the percentage of the children in their classes who passed their standards. Incidentally, the children suffered.

Section (a), as amended, was carried.

Dr. W. F. Litchfield seconded section (b). He had been under the impression that the younger children were liberated from school earlier than four o'clock.

Dr. R. B. Wade opposed the motion very strongly. He stated that the average child under 12 years of age did very little serious work. A child at school was kept out of mischief, and given something to do, which was preferable to allowing it to run about uncontrolled. He thought that it might perhaps be wise to shorten the lunch interval, in order that the children might be free at an earlier hour.

This suggestion did not meet with approval from Dr. Lipscomb, who insisted that a child should not be required to hurry at a meal, or to exert itself in returning to school after the meal.

The motion, on being put to the meeting, was lost.

In the discussion on the third section, it became apparent that few of the members present had definite evidence of the prevalence of neurasthenia among teachers. The meeting therefore declined to commit itself.

Vote of Thanks.

Dr. Henry moved a vote of thanks to the President for having conducted the meeting so ably, and for the hospitality he had extended to the delegates. The motion was carried by acclamation.

The following have been nominated for election as members of the New South Wales Branch:—

E. H. Stokes, M.B., Ch.M., 1917 (Univ. Sydney), Sydney Hospital, Sydney.

David Leslie Howell, M.B., Ch.M., 1917 (Univ. Sydney), South Sydney Hospital, Zetland.

Raymond Arthur Dart, M.B., Ch.M., 1917 (Univ. Sydney), M.Sc., 1915 (Queensland University), St. Andrew's College, Camperdown.

Kate Knowles, M.B., B.S., 1904 (Univ. London), c/o. Dr. J. H. Little, Greengate Road, Killara.

Correspondence.

THE MEDICAL PROFESSION AND THE LODGES.¹

Sir,—Herein literary style yields to brevity.

Dr. Langley: I have not classed the "estimable Richmond member" as an agitator. Re-read my letter. I cannot class him at all. Posterity may be able. I am glad he does not like me—that would be terrible.

Dr. Rosenberg: "Unanimity exceeds my wildest dreams." Know nothing of estimable member's dreams—did not know he did dream. Unfortunate habit. Have spoken to many practitioners while awake, and find no unanimity.

Dr. Langley: Do not like word "strike" myself—you will like it less after a time. Press and public both use it nowadays. Do not favour your 1% idea (*vide* letter)—too complicated—too much brain-fag. Glad you leave it to B.M.A.—you won't hear any more about it. Notice you also come to grief and compromise on income-limit point—too bad! Dr. Rosenberg won't like you. But you leave it to wisdom of B.M.A. Council—saved!

Certain document and Dr. Rosenberg: Meaning not "obvious" to me. Refuse to take as many addresses of lodge patients as possible. Still have a shred of dignity, even if hare-brained. Has a hound any more brains than a hare when it comes to a chase? Refer to Professor Osborne. Am forced to suppose document supports lovely idea Dr. Rosenberg. Latter's medical millennium approaches! All to have secretaries (paid)—tout and canvass (*vide* document) for us—investigate income-limit—work out 1% deduction; fill up venereal returns in spare time (if any). All get fat on £1 contract (private) practice, except present

private practitioners—they starve—serve them right—no business acumen! Good step on road to nationalization. Let us canonize Dr. Rosenberg. Note carefully his letter—"Still think it good plan not only while fight is on, but afterwards." Insist on italics for *afterwards*. Everyone pleased—lodge executives included.

Dr. Rosenberg: Am often silent—would not like to be as noisy as you. But not silent this time. Challenged estimable member at Prahran over darling £1 scheme. Probably estimable member having a wild dream at time—has not noticed my interruption. Still challenging anencephalous scheme (refer to documents). Have not much interest in lodge question—represents one-twentieth of my practice—therefore may claim relative lack of bias. What are Dr. Rosenberg's proportionate figures? Is this the reason of £1 scheme, or is it "sick poor"? Does estimable member work for "sick poor" also in hospital for nothing? Are there no "sick poor" scraping together lodge fees—too decent to sponge wholly on charity—in the lodges? Or are they all in hospitals (public)? Contemptible idea! Are venereal clinics all "sick poor"? Only ticket of admission needed is the disease, which knows no laws of social distinction. Is there any less abuse in public hospitals than in lodges? Has medical staff never resigned in a body before, and penalized "sick poor" for a fault (charged) of committee? Naughty staff! Dr. Rosenberg won't like you. Other instances too numerous to mention. Was there ever yet a "strike" (forgive the word) in which the innocent did not suffer with guilty? Which is less contemptible—resign all contract practice unconditionally and treat any man individually when sick for what he can afford (as most of us do)—even if "nil," or to haggle over five "bob" a year and a nebulous income-limit scheme? I stand for the first. True—am well-known in Melbourne—not been in asylum or prison yet. Know not what estimable member means—and he is frightened to say! The "Dr. Rosenbergs" are known all over world—their fame is world-wide—mine merely parochial!

Yours, etc.,

E. V. ROY HUCKELL.

South Yarra, Melbourne,
October 5, 1917.

Sir,—Drs. Huckell and Parker may depend upon it that they are not alone in disapproving of the proposed break with the lodges. There must be many others who strongly disapprove of it at the present time, and who have signed the various circulars and forwarded their resignations, somewhat under a sense of compulsion and objection to the possibility of being placed, at some future date, on the select list sent out, at regular periods, by the Secretary of the Association, hence much of the apparent unanimity, which does not necessarily mean acquiescence.

It is said that the divisions have been consulted and agreed to the proposed action, but the meetings of the divisions are held in large centres, and men in the outlying districts are in many cases prevented by time and distance from being present. There must be a great number of doctors all over Victoria who have been unable to attend meetings, and so have had no opportunity of expressing their views.

If the Council is as sure, as Dr. Rosenberg states, of the unanimity of the profession, why should it object to take a ballot on the advance gained from the lodges, and then, at a more opportune time, when things have settled down at the conclusion of the war, we would go for the whole objective. The Council at present holds all the cards, in the form of signed undertakings, and, by now, resignations, but let it consider the question of a ballot before rushing the profession into a fight in which public opinion will be strongly against us—the objection is not to the Common Form of Agreement, but to the present time being taken to enforce it.

Dr. Rosenberg mentions a "big money fund"; where is that to come from? Surely the Council does not propose to add a tax of its own to the present heavy Government taxation, which is sure to be heavier still in the near future; if so, it may rest assured that the response will be poor.

As for the statement that the proposal is not a strike, what else can it be called? Dr. Langley says we are still

¹ Dr. Huckell submitted a letter which was too long for publication. The letter which we publish is the result of his compliance with our request to keep his remarks within a limit of 600 words.

willing to work, so were the men lately on strike in the industrial sphere, but on their own terms, and the same applies to us; we will treat our lodge people only on terms dictated by the Common Agreement, or as private patients; they have no alternative, and we have little to fear from strike-breakers, and that, probably, is why we are so strongly advised to "do it now." Yours, etc.,

P. G. CLARKE.

Portarlington, Victoria,
October 8, 1917.

BARCOO ROT.

Sir,—On page 283 of *The Medical Journal of Australia*, Dr. Chas. W. Hill quotes Lieutenant-Colonel Martin's note about Barcoo rot, and states that he (Dr. Hill) has not seen a previous account of it in print. I happened to notice a description of "Barkoo" (*sic*) in Sequeira's work on skin diseases (1911) a year ago. The disease is not very accurately described, and, so far as I remember, the treatment is rather vague. So is the aetiology. I have been familiar with this disease for more than 25 years, having first seen it in the Riverina (New South Wales), and, strangely enough, had a case of it in South Australia, which came from Laverton, Western Australia, some four years ago. I have also met with cases of local origin in the lower north of South Australia (i.e., anywhere north of Adelaide and south of Port Pirie). The name is a bushman's name, and refers to the Barcoo Creek in (I think) north-west New South Wales, where it was also associated by the back-blockers with the "Billyando spew." The origin of this latter name is doubtful. Some bushmen said it was called after a creek of the name "Billyando," and others explained it as a corruption of "A billy and a spew"—because the principal symptom was that, "first thing in the morning, you takes a drink out of your billy and then spews it up." It is a nice point.

But, as to the treatment of barcoo, I may say that I have always found that sulphate of calcium in pill, 0.06 gm. (one grain), two or three times daily, cleared up the trouble better than any other thing, and that local treatment was best directed to protect the sores from further infection. Dr. Hill is quite right in stating that purely local treatment is of very little use, as a rule. Yours, etc.,

C. H. SOUTER.

"Annandale," Prospect, S.A.,
October 5, 1917.

Sir,—Dr. Hill, writing in the September 29 issue, puts forward no explanation for the efficacy of the hypophosphites in this disease, but I presume that the tonic effect on the cutaneous arterioles is the therapeutic aim.

Personally I regard continued exposure to the sun's rays under dry atmospheric conditions as the chief aetiological factor in the disease. One sees so many, certainly mild, cases in which there has been no lack of vitamins, etc., in the diet that the "scorbutic" theory goes by the board.

In a discussion with Dr. Douglas Shields in 1911, I learnt that the spreading of the initial lesion can be prevented by the simple procedure of anointing the skin in the periphery. This treatment was based on a theory of dessication affecting the oily skin secretion.

As regards Barcoo spew, Dr. Hill's synonym (highly reminiscent of the gentleman who could keep "nuthin" on his stummick but 'is 'ands") should be spelt "Belyando"—one of the Central Queensland rivers.

But why should Dr. Hill show any respect for your columns while having matter so interesting to discuss. I am sure that an article from his pen on the subject would be read with interest, and, further, thoroughly debated by scores of Queensland medics with theories of their own. Yours, etc.,

ROBERT A. G. MALCOLM, M.B., B.S. (Melb.).
Blackall, Central Queensland,
October 8, 1917.

CARDIAC IRREGULARITY—THE EXTRA-SYSTOLE.

Sir,—The treatment of extra systole is generally regarded as unsatisfactory. Mackenzie writes that in the vast majority of cases drugs are of no use, and that the cessation of the extra-systole is quite independent of the use of

drugs. This condition naturally does not come much under my notice, but during the past few years I have had three cases. In regard to one of the cases the patient went away for a holiday, and during her absence she was given a course of digitalis, which made the condition much worse. I found all three cases yield to valerianates, and that the tabl. ferri, quinin, et zinci valerianat. aa 0.06 gm. (gr. i.) was a very convenient preparation. One of the patients "would not be without her pills," and in the event of any recurrence she finds relief from a course of the pills, one after each meal. Yours, etc.,

R. A. PARKER.

Cottesbropke, Healesville, Victoria,
September 21, 1917.

PROFESSIONAL SECRECY.

Sir,—I should like to have the opinion of your subscribers upon the following points:—

1. A medical man is called in to an emergency case.
2. He finds on arrival that the patient is about to be confined.
3. He enquires as to the period of the pregnancy.
4. He is told by the patient "about six months."
5. After further enquiries and investigations he finds that "the waters have broken"; the pains have been occurring for 12 or 14 hours; "two or three miscarriages" have taken place in the past.
6. The patient is married, and her husband lives with her, and it was he who sent for the medical man above referred to.
7. On examination, a head is felt of about the normal size for eight to nine months.
8. But the first thing encountered by the fingers is the ferrule of a gum elastic catheter, which the medical attendant withdraws. The catheter is intact, and attached to a piece of string, which projected from the vagina.
9. The medical attendant asks who put this instrument in the vagina. No answer.
10. Delivery is imminent; the head of the child in the normal position, but pains slow and feeble.
11. Half an hour later pituitary extract is injected, and delivery of child and placenta occur within quarter of an hour, normally. The child is alive and well and lusty, and apparently nearly, if not quite, of nine months' gestation.
12. The patient is again asked who put the gum elastic catheter in the womb, and replies that she did it herself.
13. Questions.—What is the medico-legal duty of the medical attendant?

- (a) Should he report this "felony" to the police?
- (b) Should he tell the husband what has happened?
- (c) How far is he to be bound by "professional secrecy" in a legal sense?
- (d) Or is he to be guided by "Woodman and Tidy"¹ (1877, page 5, part XII.): "For it seems a monstrous thing that the secrets affecting the honour of families, and perhaps confided to the medical man in a moment of weakness, should be dragged into the garish light of a law court." Yours, etc.,

C. H. SOUTER.

Annandale, Prospect, South Australia,
October 10, 1917.

[The question raised in Dr. Souter's letter involves a principle which was the subject of careful consideration by the Council and Representative Body in 1915 (see *British Medical Journal*, Supplement, July 31, 1915, page 57, and *The Medical Journal of Australia*, April 15, 1916, page 325). At the representative meeting in 1915, the following resolutions of the Council were endorsed:—

That the Council is of opinion that a medical practitioner should not under any circumstances disclose voluntarily, without the patient's consent, information which he has obtained from that patient in the exercise of his professional duties.

The Council is advised that the State has no right to claim that an obligation rests upon a medical practitioner to disclose voluntarily information which he has obtained in the exercise of his professional duties. The Royal College of Physicians of London has arrived at a somewhat similar conclusion. Medical practitioners should therefore regard this determination as a guide to practice.]

¹ "Handbook of Forensic Medicine and Toxicology."

Proceedings of the Australasian Medical Boards.

VICTORIA.

The undermentioned has been registered under the provisions of Part I of "The Medical Act, 1915" as a duly qualified practitioner:—

Driscoll, Richard John, M.B. & Ch.B., Glas., 1908, 26 Elm Grove, Rippon Lea.

The name of the undermentioned deceased practitioner has been removed from the register:—

William Boake.

NEW SOUTH WALES.

The following have been registered under the provisions of "The Medical Act, 1912 and 1915" as duly qualified practitioners:—

Crago, Percival George, M.B., Mast. Surg., 1917, Univ. Sydney.

Larbalestier, Leslie Ewart Senis, M.B., Mast. Surg., 1917, Univ. Sydney.

Macqueen, Frederic Lindsay, M.B., 1917, Univ. Sydney.

Nelson, Thomas Yeates, M.B., Mast. Surg., 1917, Univ. Sydney.

Robinson, Arthur Thomas Rowlandson, M.B., Mast. Surg., 1917, Univ. Sydney.

Ormerod, Edward Booth, M.R.C.S., Eng., 1887; Lic. Soc. Apoth. London., 1887.

QUEENSLAND.

The following have been registered under the provisions of the "Medical Act of 1867" as duly qualified medical practitioners:—

Driscoll, Richard John, Ballara, M.B., Ch.B., Univ. Glas., 1908.

Edwards, Edmond Daniel, Einasleigh, M.B., Ch.B., B.A.O., Univ. Dubl., 1901.

Gandevia, Eric Neville Harle, Miles, M.B., Ch.B., Univ. Melb., 1917.

Medical Appointments.

Dr. John Chalmers Baird has been appointed Public Vaccinator for the South-Western District, Victoria.

Dr. John Brooke Moore has been appointed Visiting Surgeon and Medical Officer-in-Charge of the Lock Hospital, Bathurst Gaol, New South Wales. The appointment is to date from October 8, 1917.

Medical Appointments.

IMPORTANT NOTICE.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.

Branch.	APPOINTMENTS.
TASMANIA. (Hon. Sec., Belgrave, Tasmania.)	Medical Officers in all State-aided Hospitals in Tasmania.
VICTORIA. (Hon. Sec., Medical Society Hall, East Melbourne.)	Brunswick Medical Institute. Bendigo Medical Institute. Prahran United F.S. Dispensary. Australian Prudential Association Proprietary, Limited. National Provident Association. Life Insurance Company of Australia, Limited. Mutual National Provident Club.

Branch.	APPOINTMENTS.
QUEENSLAND. (Hon. Sec., B.M.A. Building, Adelaide Street, Brisbane.)	Medical Officers to the Selwyn Hospital, North Queensland. Brisbane United Friendly Society Institute.
SOUTH AUSTRALIA. (Hon. Sec., 3 North Terrace, Adelaide.)	The F.S. Medical Assoc., Incorp., Adelaide.
WESTERN AUSTRALIA. (Hon. Sec., Health Department, Perth.)	All Contract Practice Appointments in Western Australia.
NEW SOUTH WALES. (Hon. Sec., 30-34 Elizabeth Street, Sydney.)	Australian Natives' Association. Balmain United F.S. Dispensary. Canterbury United F.S. Dispensary. Leichhardt and Petersham Dispensary. M.U. Oddfellows' Med. Inst., Elizabeth Street, Sydney. Marrickville United F.S. Dispensary. N.S.W. Ambulance Association and Transport Brigade. North Sydney United F.S. People's Prudential Benefit Society. Phoenix Mutual Provident Society. F.S. Lodges at Casino. F.S. Lodges at Lithgow. F.S. Lodges at Parramatta, Penrith, Auburn and Lidcombe. Newcastle Collieries — Killingworth, Seaham Nos. 1 and 2, West Wallsend.
NEW ZEALAND: WELLINGTON DIVISION. (Hon. Sec., Wellington.)	Friendly Society Lodges, Wellington, N.Z.

Diary for the Month.

- Oct. 20.—Northern Suburbs Med. Assoc. (N.S.W.).
Oct. 20.—Eastern Suburbs Med. Assoc. (N.S.W.).
Oct. 25.—S. Aust. Branch, B.M.A., Branch.
Oct. 26.—N.S.W. Branch, B.M.A., Branch.
Oct. 30.—N.S.W. Branch, B.M.A., Medical Politics Committee; Organization and Science Committee.
Oct. 31.—Vict. Branch, B.M.A., Council.
Nov. 2.—Q. Branch, B.M.A., Branch.
Nov. 3.—Vict. Branch, B.M.A., Nomination Papers for Election of Members of Council Issued.
Nov. 9.—S. Aust. Branch, B.M.A., Council.
Nov. 9.—N.S.W. Branch, B.M.A., Clinical.
Nov. 13.—Tas. Branch, B.M.A., Council and Branch.
Nov. 13.—N.S.W. Branch, B.M.A., Ethics Committee.
Nov. 14.—Vict. Branch, B.M.A., Branch.
Nov. 14.—North-Eastern Med. Assoc. (N.S.W.).
Nov. 14.—Vict. Branch, B.M.A., Nomination Papers for Election of Members of Council Returned.
Nov. 15.—Vict. Branch, B.M.A., Council.

EDITORIAL NOTICES.

Manuscripts forwarded to the office of this Journal cannot under any circumstances be returned.
Original articles forwarded for publication are understood to be offered to *The Medical Journal of Australia* alone, unless the contrary be stated.
All communications should be addressed to "The Editor," *The Medical Journal of Australia*, B.M.A. Building, 30-34 Elizabeth Street, Sydney, New South Wales.